

MODEL NO. T1640-98

SERIAL NO. 233508465



BLANK

MODEL NO. T1640-98
SERIAL NO. 233508465



9600 IRONDALE AVE., CHATSWORTH, CALIF. 91311
PHONE (213) 882-0030 TWX (910) 494-2093

104716

WARNING

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. As temporarily permitted by regulation, it has not been tested for compliance with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

TABLE I (CONT'D) ①

PART NO.	REFERENCE DESIGNATION
100-1015	R24, 69, 131, 102, 137, 1-7, 154, 158, 176
100-1025	R1, 3, 14, 18, 21, 22, 42, 44, 54, 63, 62, 72, 73, 79, 84, 85, 87, 7, 18, 19, 129, 133, 111, 132, 123, 144, 181, R145, 150, 151, 152, 155, 164, 167, 171, 172, 173
100-1035	R2, 4, 6, 8, 10, 11, 13, 16, 17, 23, 45, 52, 55, R56, 57, 61, 63, 67, 71, 115, 121, 130, 149, 165, 167, 169
100-1045	R38, 93, 75
100-1055	R5, 15, 53, 86, 131, 134, 173
100-1065	R174, 95
100-1085	R34, 35, 76, 114, 122, 166
100-2225	R156, 99
100-3315	R108, 125, 126
100-4705	R91
100-4715	R128, 139
100-4725	R7, 9, 12, 19, 74, 129, 136, 138, 178, 180
100-5605	R, 96, 104, 116, 117, 118, 119, 120, 124, 113
100-5725	R46, 110
100-5735	R168
101-2215	R88
101-107	R175
101-1015	R146, 153, 157
403-1805	R30, 89
102-1515	R177
108-1015	R51
108-4715	R135, 148
109-1001	R27, 106
109-1002	R25, 37, 39, 40, 41, 49, 103
109-1003	R48
107-2151	R94
109-3832	R36
107-6810	R64
109-6811	R26
109-5112	R72
108-4715	R23, 68
109-0500	R133
109-2715	R40
111-0001	R89
111-0009	R91, 32, 33, 81, 82, 83
118-0013	R127
121-5010	R59
121-1020	R47, 179
130-1015	C29, 14
130-2215	C18
130-3315	C4
131-6820	C39
131-3320	C2, 5, 8, 34
131-4720	C3, 6, 7
131-6830	C33

TABLE I (CONT'D) ①

PART NO.	REFERENCE DESIGNATION
135-1381	C12, 13, 32, 40
139-1260	C21
139-2244	C19, 25, 30, 31
139-2262	C9, 10, 17, 20, 16
139-3302	C15
139-6845	C24, 28, 35, 36
142-1070	C26, C22, 38
142-9369	C1, 11
200-0013	Q2, 0
200-0041	Q19, 42, 43, 45, 47,
200-0092	Q6, 36
200-0004	Q32, 35
200-4037	Q41
200-4123	Q2, 4, 11, 17, 18, 24, 30, 31, 37, 51, 52, 55, 56, 57
200-4125	Q1, 3, 13, 14, 28, 29, 33, 34, 53, 54, 38, 58
200-4848	Q7, 8, 9, 21, 22, 23
200-5321	Q10
200-5323	Q16, 27, 44, 46
200-3772	Q 26
201-0126	SCR2, 3
201-3669	SCR1
204-0074	Q5, 12, 15, 25, 53
300-4002	CR1, 4, 5, 8, 10, 11
300-4446	CR2, 3, 6, 7, 9, 12
330-0475	VR4, 5, 9
330-0665	VR1
330-0515	VR7
330-1225	VR8
331-1905	VR3, 6
331-0335	VR2
400-0305	U2
400-0307	U3, 8, 9, 10, 15
400-025	U1
400-0318	U12
403-0732	U4, 13
710-7400	U5, 11, 14
710-7404	U7
710-7410	U6

TABLE II ②

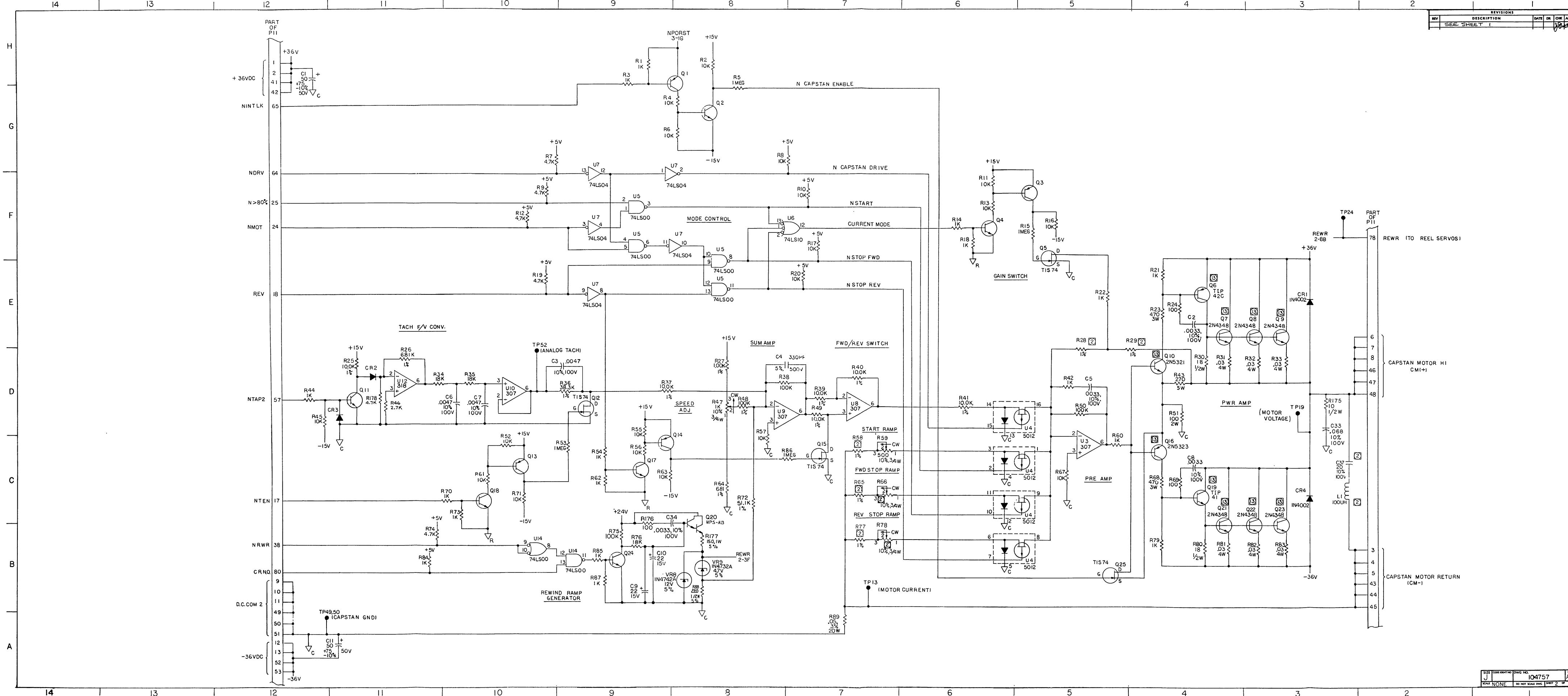
ASSEMBLY 134758 VERSION NO.	CHARACTERISTIC	Q39, 40, 48, 49 R140, 141, 142, 143, 159, 162, 161, 162 USAGE ③	R112		R28, 29		R58, 65, 77		C37		LI		R90		R92		R105		WI		R66, 78				
			VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.	131-2060	515-10II	VALUE	PART NO.	VALUE	PART NO.	101-3905	500	121-500	OMIT	1000	121-5010	OMIT	100-0005	500	121-5010	
-01	BASIC	OMIT	0.3	118-933	26.1K	107-2612	62.5	107-0825	OMIT	0.1	110-0011	10	100-1005	39	101-3905	500	121-500	OMIT	1000	121-5010	OMIT	100-0005	500	121-5010	
-02	GCR	OMIT	0.15	118-9013	16.2K	107-1622	562	107-5620	USE	0.1	110-0011	10	100-1005	39	101-3905	500	121-500	OMIT	1000	121-5010	OMIT	100-0005	500	121-5010	
-03	OEM STD	OMIT	0.3	118-0033	26.1K	107-2612	62.5	107-0825	OMIT	0.03	110-0003	—	OMIT	—	OMIT	100-0005	500	121-5010	OMIT	1000	121-5010	OMIT	100-0005	500	121-5010

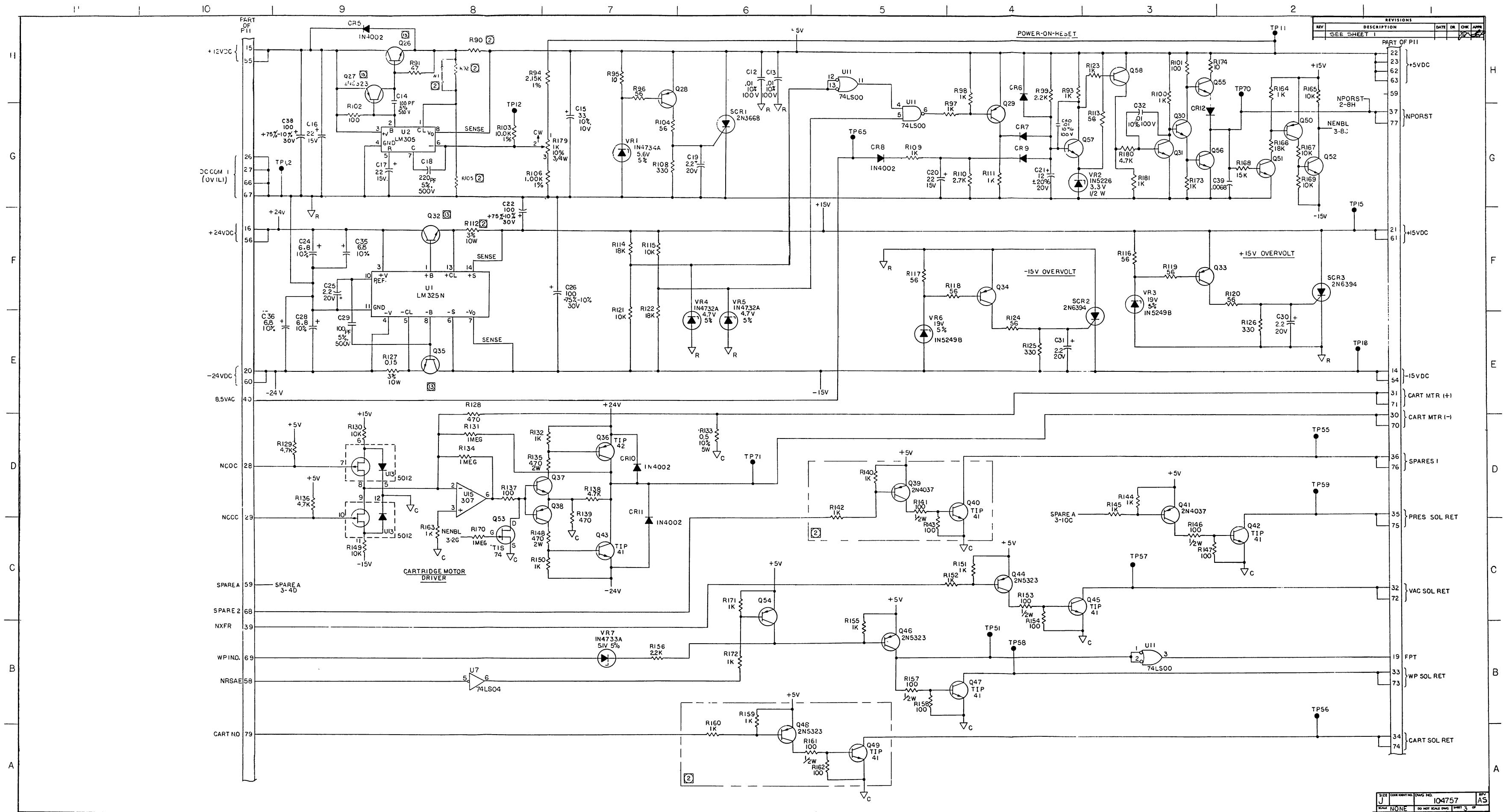
TABLE III ③

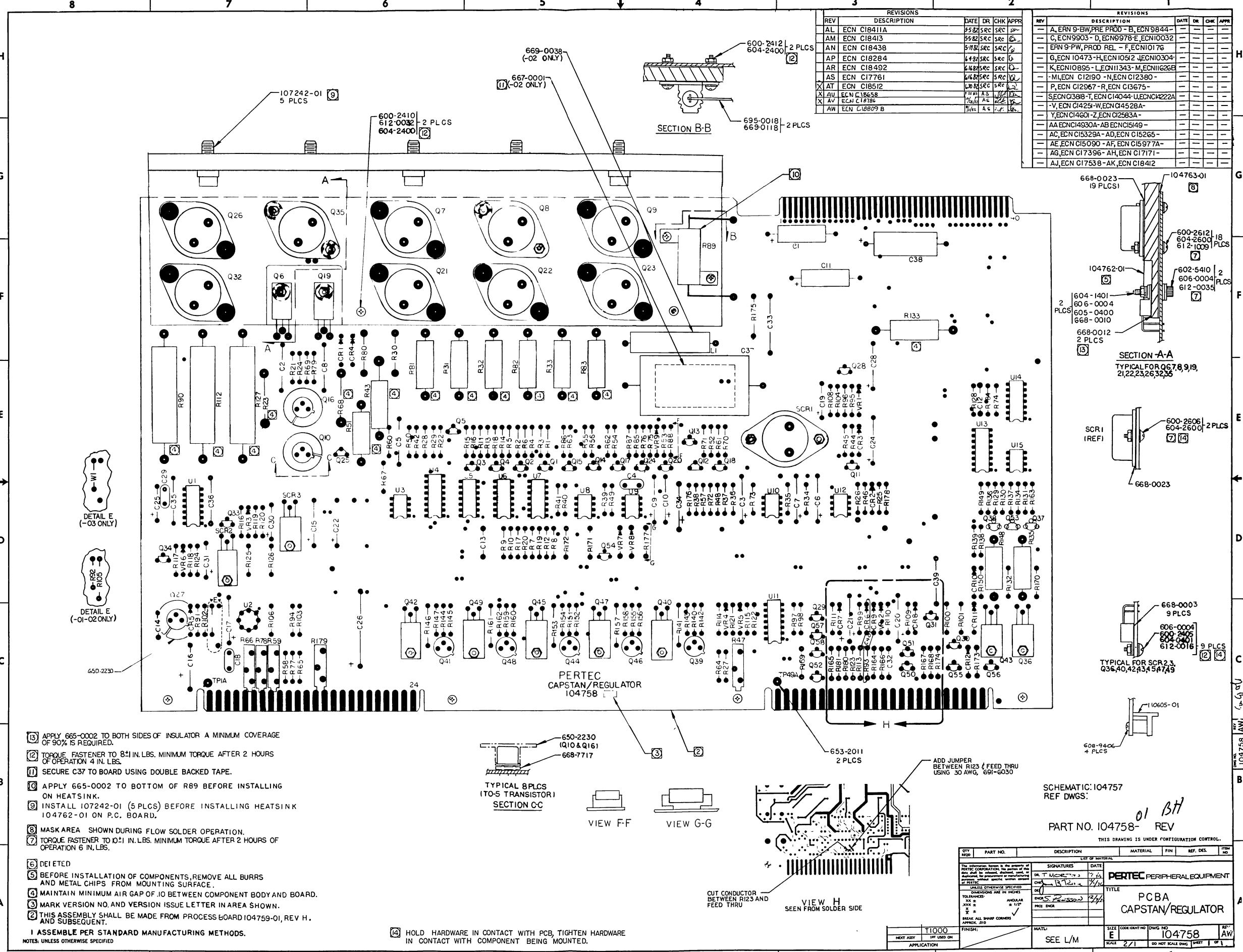
PART NO.	REFERENCE DESIGNATIONS
100-1015	R143, 162
100-1025	R140, 142, 159, 160
101-1015	R141, 161
200-0041	Q40, 49
200-4037	Q39
200-5323	Q48

GROUND & VOLTAGE PIN NO.				
I.C. TYPE	+15V	+5V	GND (R)	-15V
74LS00		14	7	
74LS04		14	7	
74LS10		14	7	
LM307	7			4
LM318	7			4

REFERENCE DESIGNATIONS		
LAST USED	NOT USED	DELETED
C40		C27, C23
CR12		
P11	PI-10	
Q8		
U1		
U2		
U3		
U4		
U5		
U6		
U7		
U8		
U9		
U10		
U11		
U12		
U13		
U14		
U15		
U16		
U17		
U18		
U19		
U20		
U21		
U22		
U23		
U24		
U25		
U26		
U27		
U28		
U29		
U30		







Part No.	Reference Designation
100-1015	R106, 109, 206, 209, 30W, 309, 406, 409, 506, 509, 606, R609, 706, 709, 806, 809, 906, 909
100-1025	R4, 13, 30 THRU 34, 47, 49, 53, 60, 70, 107, 207, 307, R407, 507, 607, 707, 807, 907, 73
100-1055	R1, 2, 15, 16, 36, 66
100-1055	R52, 58, 68, 104, 118 THRU 121, 204, 218 THRU 221, R304, 318 THRU 321, 404, 418 THRU 421, 504, R518 THRU 521, 604, 618 THRU 621, 704, R718 THRU 721, 804, 818 THRU 821, 904, R918 THRU 921
100-2205	R50, 54
100-2225	R35
100-2235	R3
100-4745	R74
100-3925	R55, 56, 57, 63, 67, 110 THRU 117, 210 THRU 218, R310 THRU 317, 410 THRU 417, 510 THRU 517, R610 THRU 617, 710 THRU 717, 810 THRU 810, R910 THRU 917
100-4715	R48, 51, 59, 69, 122, 123, 222, 223, 322, 323, 422, 423, R522, 523, 622, 623, 722, 723, 822, 823, 922, 923
100-4725	R14, 61
107-0100	R72
107-0196	R75
100-1235	R77
107-0548	R10, 28
107-0511	R9, 27
107-1002	R17, 19, 20, 22, 108, 208, 308, 408, 508, 608, 708, 808, R908
107-1101	R7
107-1212	R103, 105, 203, 205, 303, 305, 403, 405, 503, 505, 603, R605, 703, 705, 803, 805, 903, 905
107-1330	R8, 26
107-2151	R64, 65
107-2371	R62
107-2870	R5
107-3830	R23
107-4641	R12
107-5111	R21
107-5110	R101, 102, 201, 202, 301, 302, 401, 402, 501, 502, #01, R602, 701, 702, 801, 802, 901, 902
107-3161	R18
107-8250	R6
120-0001	U12, 14
121-1010	R11, 29
121-2380	R37
130-1515	C64
130-2215	C65
130-4705	C63, 66, 67, 107 THRU 110, 207 THRU 210, C307 THRU 310, 407 THRU 410, 507 THRU 510, C607 THRU 610, 707 THRU 710, 807 THRU 810, C907 THRU 910
135-1031	C73
135-4742	C48 THRU 58, 68, C31 THRU 34, C69
139-4755	C59, 60, 61
139-2244	C1 THRU 30, 35 THRU 46, 101, 102, 201, C202, 301, 302, 401, 402, 501, 502, #01, 602, 701, 702, C801, 802, 901, 902

Part No.	Reference Designation
200-4123	Q4, 10, 11
200-4125	Q1, 2, 3, 5, 6, 9
204-0374	Q101, 201, 301, 401, 501, 601, 701, 801, 901
300-4446	CR1, 2, 101 THRU 108, R201 THRU 208, 301 THRU 308, CR401 THRU 408, 501 THRU 508, 601 THRU 608, CR701 THRU 708, 801, THRU 808, 901 THRU 908
400-0318	U101, 102, 201, 202, 301, 302, 401, 402, 501, 502, 601, U602, 701, 702, 801, 802, 901, 902
400-0319	U41, 42, 103, 104, 203, 204, 303, 304, 403, 404, 503, U504, 603, 604, 703, 704, 803, 804, 903, 904
400-2741	U38, 39, 40
515-1015	L1 THRU 6
700-5452	U7, 8, 9, 18 THRU 26
700-7416	U17, 34
710-4123	U105, 205, 305, 405, 505, 605, 705, 805, 905
710-7400	U29, 30
710-7404	U27, 28
710-7410	U33
710-7427	U1, 3, 6, 31
710-7430	U32
710-7438	U36, 37
710-7474	U10, 11, 13, 15, 16
710-7486	U2, 4, 5
I04-1471	R76
I07-1621	R25
I04-2610	R71
I07-0000	R24

PART NO.	REFERENCE DESIGNATION
100-1035	R40, 44
100-2225	R39, 43
107-3162	R42
107-5112	R46
121-5030	R41, 45
200-4125	Q7, 8
710-7426	U35

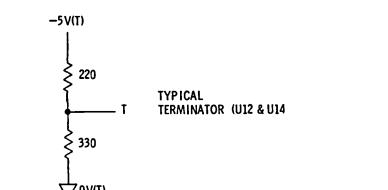
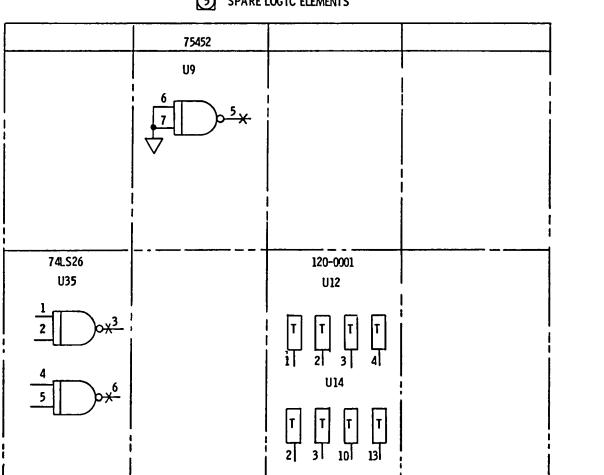
ASSEMBLY 10406 VERSION NO.	VERSION CHARACTER- ISTIC	C62		C10, 20, 30, 40, 50, 60, 70, 80, 90		C104, 204, 304, 404, 504, 604, 704, 804, 904		C105, 205, 305, 405, 505, 605, 705, 805, 905		C106, 206, 306, 406, 506, 606, 706, 806, 906		C111, 211, 311, 411, 511, 611, 711, 811, 911		C112, 212, 312, 412, 512, 612, 712, 812, 912		R 38	
		VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.
-01	75 IPS	.0015	131-1520	100 PF	130-1015	47 PF	130-4705	560 PF	130-5615	56 PF	130-5605	.0033	131-3320	.0022	131-2220	10.0K	107-1002
-02	100 IPS	.001	131-1020	75 PF	130-7505	33 PF	130-3305	330 PF	130-3315	33 PF	130-3305	.0033	131-3320	.0022	131-2220	10.0K	107-1002
-03	112.5/125 IPS	750 PF	130-7515	56 PF	130-5605	33 PF	130-3305	330 PF	130-3315	33 PF	130-3305	.0022	131-2220	.0015	131-1520	10.0K	107-1002

REVISIONS				
DESCRIPTION	DATE	DR	CHK	APPR
ERN 8-YC PRE PROD RELEASE	1/6/76	TOC	SOA	POA
ECN 9653A	1/11/76	LCB	RCB	POCB
ERN 9-UT PROD. RELEASE	1/11/76	SOA	LCB	POCB
ECN 100465	1/11/76	SOA	LCB	POCB
ECN 104658	1/11/76	SOA	LCB	POCB
ECN 102666	1/11/76	SOA	LCB	POCB
ECN 11127	2/2/76	LCB	SOA	POCB
ECN 11331	2/2/76	LC	SOA	POCB
ECN 11736	2/12/76	HM	LCB	POCB
ECN 11953	2/17/76	HM	LCB	POCB
ECN/C12055	3/10/76	HM	LCB	POCB
ECN C12190	3/10/76	HM	LCB	POCB
ECN C13184	3/11/76	HM	POA	POCB
ECN C13495A	3/13/76	SOA	POA	POCB
ECN C14147	3/14/76	SOA	POA	POCB

② TABLE II (CONT'D)					
ION- ACTER- IC	R124, 125, 224, 225, 324, 325, 424, 425, 524, 525, 624, 625, R724, 725, 824, 825, 924, 925		J1, 2	Q7, 8 R39, 40, 41, 42, 43, 44, 45, 46 U35	
	VALUE	PART NO.		101913-01	USAGE ③
IPS	27K	100-2735		USE	OMIT
IPS	18K	100-1835		USE	OMIT
125 IPS	22K	100-2235		USE	OMIT

REFERENCE DESIGNATIONS			
NOT USED	NOT USED	DELETED	DELETED
[12]	[12]	[12]	[12]
C12		C47	
CR8			
Q1			
R25			
TP2	TP1 THRU 48	TP77	
U5			

I.C. VOLTAGE AND GROUND PIN NO.'S						
C. TYPE	+15 V(F2)	+15 V(F1)	+5 V(L)	+5 V(T)	0 V(L)	0 V(T)
		7				4
		11			3,8	6
	7					4
5		14		7		
52		8		4		
500		14		7		
504		14		7		
510		14		7		
526		14		7		
527		14		7		
530		14		7		
538		14		7		
574		14		7		
586		14		7		
5123		16		8		
5001			14		7	
U42, (319)	11				3,8	6



14. RESISTOR NETWORK U12 & U14 ARE SPECIFIED AT TOP ASSY.

13. CAPACITORS LISTED AS PICOFARADS ARE 5%, 500 V.

12. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION PREFIX WITH CIRCUIT NUMBER. (R1 IN CIRCUIT 200 IS R201).

11. SIGNALS ARE CROSS-REF WITHIN SHT 2 BY NUMBERS APPEARING UNDER THE ASSOCIATED LOGIC TERM MNEMONIC. THE FIRST NO. IS THE SHEET NO. AND THE SECOND NO. IS THE ZONE NO.

10. DIODES ARE IN 4446.

9. PNP TRANSISTORS ARE 2N4125.

8. NPN TRANSISTORS ARE 2N4123.

7. CAPACITORS ARE IN MICROFARADS, 20%, 20V.

6. RESISTOR VALUES ARE IN OHMS. 5%, 1/4W, 1% ARE 1/8W.

5. FOR SPARE LOGIC ELEMENTS, SEE TABLE V.

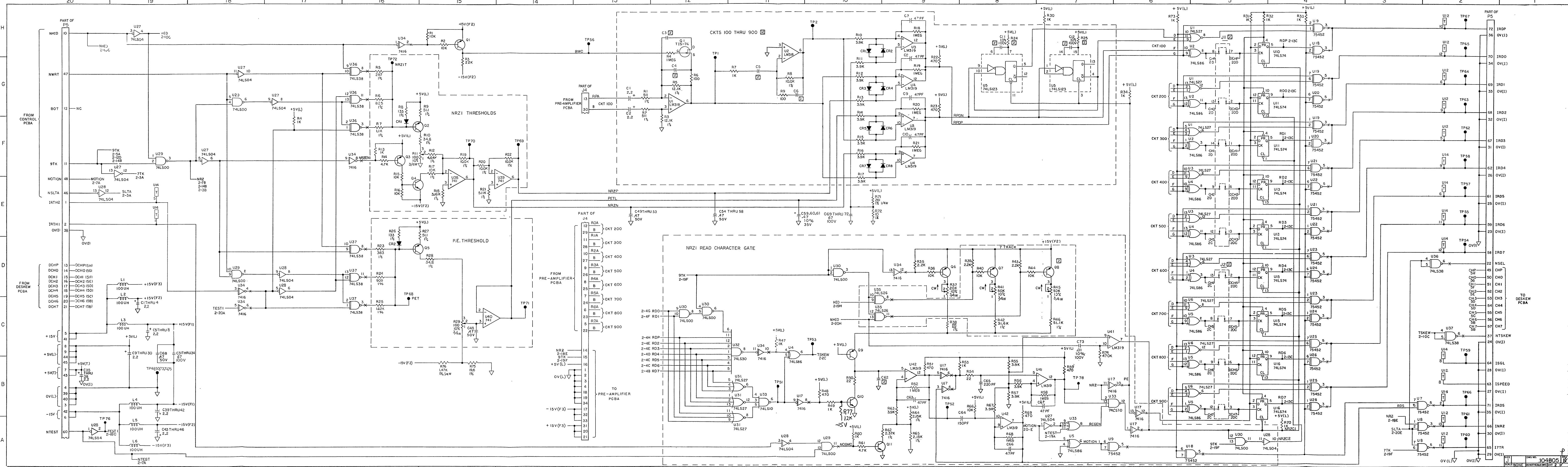
4. FOR I. C. GENERIC TYPE NO. AND GROUND/VOLTAGE PIN NOS. SEE TABLE IV.

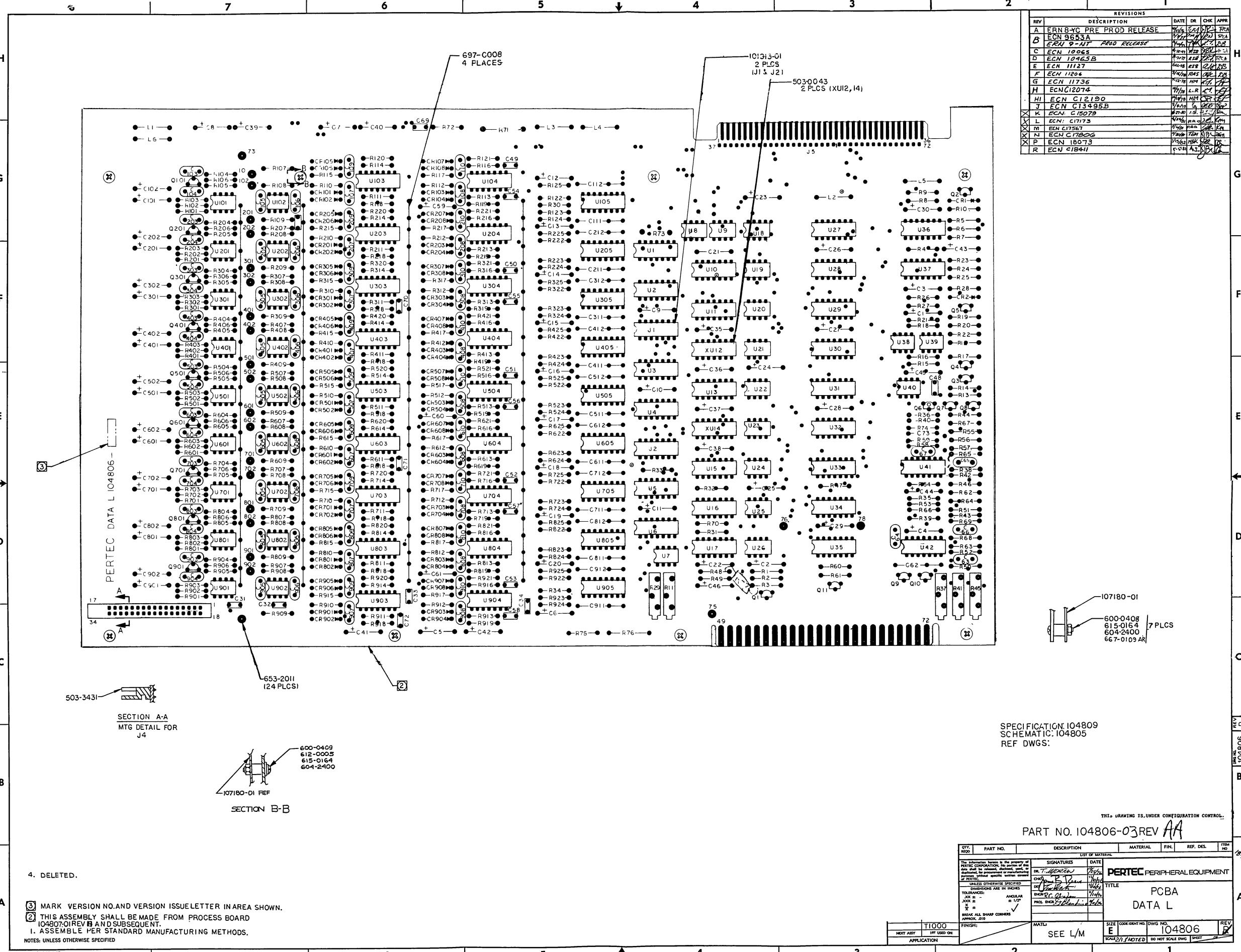
3. FOR PART NUMBER, SEE TABLE III.

2. FOR VALUE, PART NUMBER AND USAGE OF COMPONENTS AFFECTED BY VERSION NUMBER, SEE TABLE II.

1. FOR PART NUMBER OF COMPONENTS NOT AFFECTED BY VERSION NUMBER, SEE TABLE I.

THIS DRAWING IS UNDER CONFIGURATION CONTROL.					
the property of the customer or manufacturer unless otherwise specified in inches Angular $\pm 1/2^\circ$ Dimensions	SIGNATURES	DATE	PERTEC PERIPHERAL EQUIPMENT DIVISION		
	<i>DR. T. L. Cason</i>	<i>1/10/85</i>			
	<i>Chas. J. B. Barnes</i>	<i>1/10/85</i>	TITLE	SCHEMATIC	
	<i>DET. T. L. Cason</i>	<i>1/10/85</i>		DATA L	
	<i>ENGR. R. C. Olson</i>	<i>1/10/85</i>			
	<i>PROL. ENGR. B. Blomquist</i>	<i>1/10/85</i>			
MATL:		SIZE	CODE IDENT NO.	DWG. NO.	REV.
				104805	





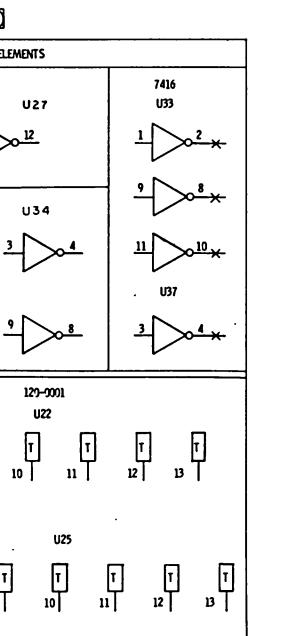
BLANK

TABLE I (1)	
PART NO.	REFERENCE DESIGNATION
100-1025	R2, 4, 5, 11, 18, 22, 23, 27, 29, 30, 31, 33 THRU 34, 111, 112, 114, 212, 213, 214, 215, 216, 217, 218, 411, 412, 414, 512, 513, 514, 611, 612, 614, 711, 712, 714, 811, 812, 814, 911, 912, 914, 24, 25
100-1025	R13
100-1065	R9
100-1225	R15
100-1515	R26, 32
100-1525	R102, 202, 302, 402, 502, 602, 702, 802, 902
100-1535	R8
100-1815	R104, 116, 204, 216, 304, 316, 404, 416, 504, 516, 604, 616, 704, 716, 804, 816, 904, 916
100-1825	R20
100-2225	R7, 12
100-2245	R10
100-2735	R108, 208, 308, 408, 508, 608, 708, 808, 908
100-3315	R19
100-3325	R108, 208, 308, 408, 508, 608, 708, 808, 908
100-3985	R3
100-4725	R6, 28
101-1015	R17, 107, 109, 207, 209, 307, 309, 407, 409, 507, 509, 607, 609, 707, 709, 807, 809, 907, 909
101-1025	R1, 21
101-1215	R39, 40, 41, 42
101-8205	R16
101-7505	R105, 205, 305, 405, 505, 605, 705, 805, 905
107-1212	R110, 210, 310, 410, 510, 610, 710, 810, 910
107-1621	R106, 206, 306, 406, 506, 606, 706, 806, 906
107-3161	R113, 213, 313, 413, 513, 613, 713, 813, 913
107-8251	R115, 215, 315, 415, 515, 715, 815, 915
(4) 120-0001 U22, 25	
121-1030	R101, 201, 301, 401, 501, 601, 701, 801, 901
130-4705	C3, 20
135-4742	C5
139-2244	C1, 2, 4, 7 THRU 19, 21, 22
200-4087	Q101, 201, 301, 401, 501, 601, 701, 801, 901, 102, 202, 302, 402, 502, 602, 702, 802, 902, 102, 303, 403, 503, 603, 703, 803, 903
200-4123	Q2, 104, 105, 204, 205, 304, 305, 404, 405, 504, 505, 604, 605, 704, 705, 804, 805, 904, 905
200-4125	Q1

TABLE I (1) (CONT'D)	
PART NO.	REFERENCE DESIGNATION
200-5323	Q3, 4
300-4446	CR1
400-2741	U38
700-7416	U33, 37
710-4132	U21, 24, 28
700-4221	U2, 5, 7, 10, 12, 15, 17, 20, 23, 35
710-7400	U31, 32
710-7404	U34
710-7414	U27
710-7438	U36
710-7474	U4, 9, 14, 19, 26
710-7476	U1, 6, 11, 16, 30
710-7486	U3, 8, 13, 18, 29

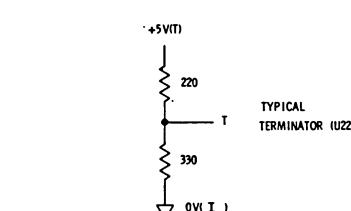
ASSEMBLY 104811 VERSION NO.	VERSION CHARACTERISTIC	C6		C101, 201, 301, 401, C501, 601, 701, 801, C901		C102, 202, 302, 402, C502, 602, 702, 802, C902	
		VALUE	PART NO.	VALUE	PART NO.	VALUE	PART NO.
-01	75 IPS	.0022	131-2220	750 PF	130-7515	56 PF	130-5605
-02	100 IPS	.0022	131-2220	750 PF	130-7515	43 PF	130-4305
-03	112.5/125 IPS	.0015	131-1520	560 PF	130-5615	33 PF	130-3305

TABLE II (2)	
PART NO.	REFERENCE DESIGNATION
400-2741	U38
700-7416	U33, 37
710-4132	U21, 24, 28
700-4221	U2, 5, 7, 10, 12, 15, 17, 20, 23, 35
710-7400	U31, 32
710-7404	U34
710-7414	U27
710-7438	U36
710-7474	U4, 9, 14, 19, 26
710-7476	U1, 6, 11, 16, 30
710-7486	U3, 8, 13, 18, 29



I.C. TYPE	+5V (L) PIN NO.	GND PIN NO.
7416	14	7
74500	14	7
74504	14	7
74538	14	7
74574	14	7
74576	5	13
74586	14	7
74514	14	7
74LS132	14	7

LAST USED	NOT USED	DELETED
U22	—	—
C22	C2	—
CR1	—	—
Q4	Q5	—
R42	R16	—
TP48	TP3 THRU 24, 43, 44, 46	—
U38	—	—



(4) RESISTOR NETWORK U22 & U25 ARE SPECIFIED AT TOP ASSY.
 13. ALL UNMARKED GND'S ARE OV (L).
 14. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION PREFIX WITH CIRCUIT NUMBER. (R1 IN CIRCUIT 200 IS R201).
 11. (RESERVED)
 10. (RESERVED)
 9. PNP TRANSISTORS ARE 2N4037.
 8. NPN TRANSISTORS ARE 2N4123.
 7. CAPACITOR VALUES ARE IN MICROFARADS, 20V, 10V.
 6. RESISTOR VALUES ARE IN OHMS, 5%, 1/4W.
 5. FOR SPARE LOGIC ELEMENTS, SEE TABLE IV.
 4. FOR I.C. GENERIC TYPE NO. AND GROUND/VOLTAGE PIN NOS. SEE TABLE IV.
 3. (RESERVED)
 2. FOR VALUE, PART NUMBER AND USAGE OF COMPONENTS AFFECTED BY VERSION NUMBER, SEE TABLE II.
 1. FOR NUMBER OF COMPONENTS NOT AFFECTED BY VERSION NUMBER, SEE TABLE I.
 NOTES: UNLESS OTHERWISE SPECIFIED

ASSEMBLY NUMBER 104811
SPECIFICATION NUMBER 104814
REFERENCE DRAWINGS

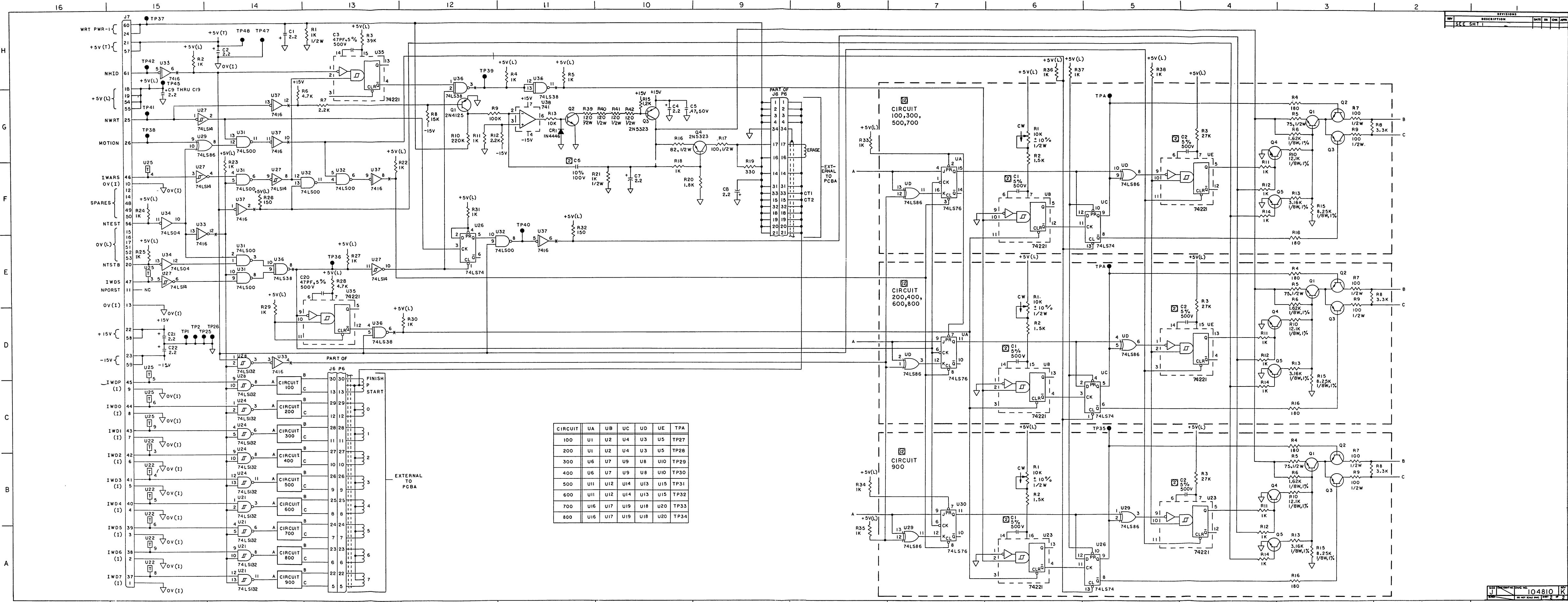
THIS DRAWING IS UNDER CONFIGURATION CONTROL.

REVISIONS

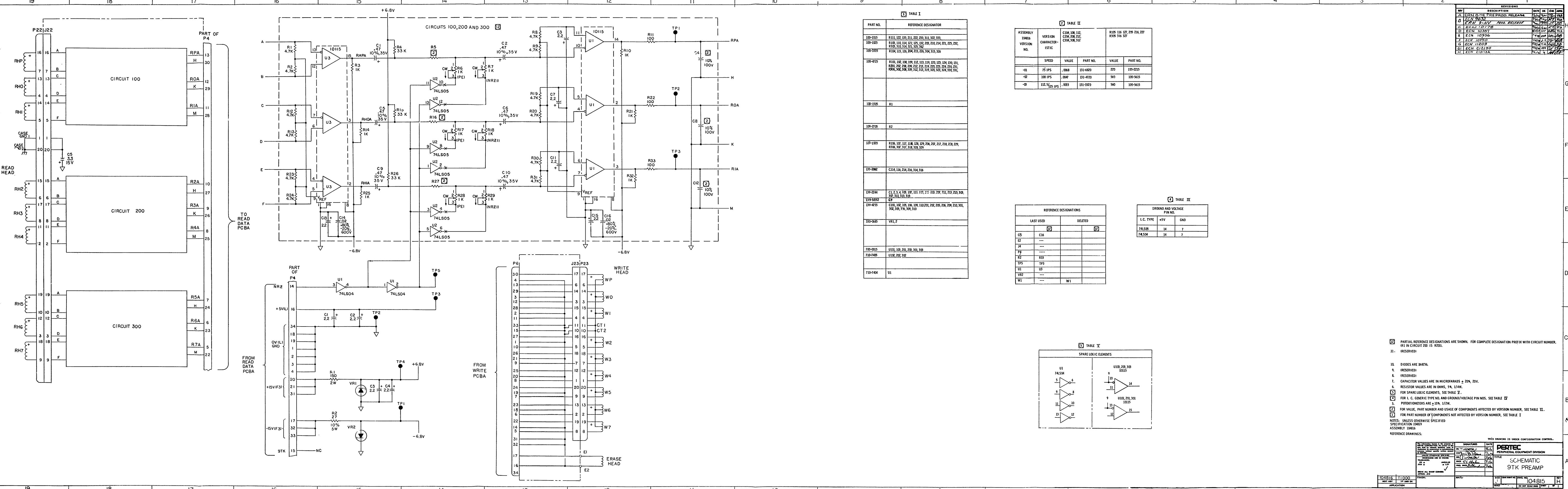
REV	DESCRIPTION	DATE	DR	CHE	APP
A	ERN 8-YO PRE-PRODUCTION REL	10-28-72	R	J	PERTEC
A1	ERN 9731	10-28-72	U	J	PER
B	ERN 10164	11-2-72	U	J	PER
C	ERN 10213	11-2-72	U	J	PER
E	ECN 10264	11-1-72	U	J	PER
F	ECN 11486	11-2-72	U	J	PER
G	ECN 11641	11-2-72	U	J	PER
H	ECN C12190	11-2-72	U	J	PER
I	ECN C15088	11-2-72	U	J	PER
J	ECN C15941A	11-2-72	U	J	PER

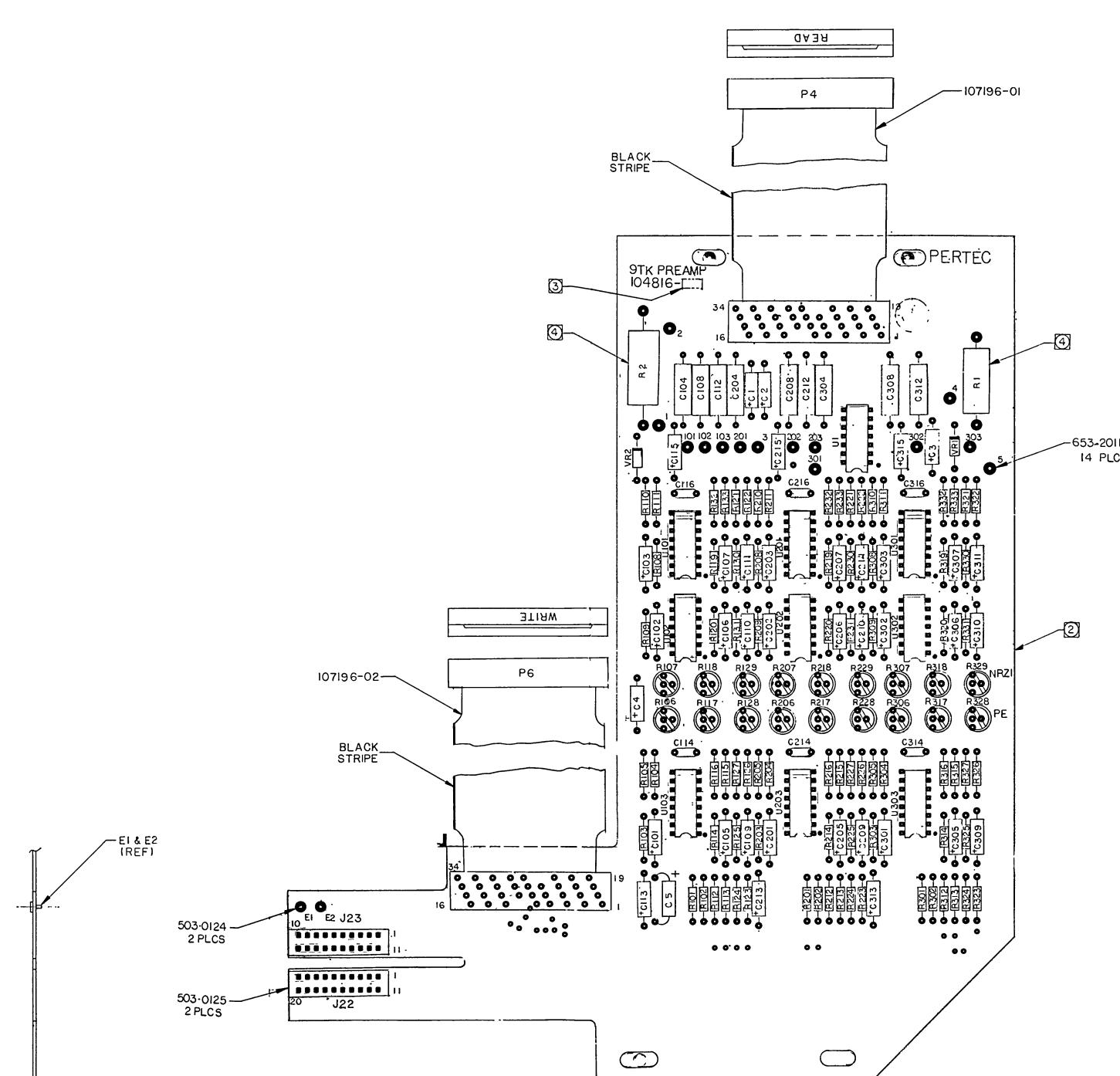
PERTEC
PERIPHERAL EQUIPMENT DIVISION
Schematic, Write

FINISH: J
MATERIAL: J
SIZE: 104810
Dwg. No.: K
Scale: 1:1
Sheet No.: 1
Date: 10-28-72



BLANK





SPECIFICATION: 104819
SCHEMATIC: 104815
REF DWGS:

PART NO. 104816-03REV. K
THIS DRAWING IS UNDER CONFIGURATION CONTROL

QTY.	PART NO.	DESCRIPTION	MATERIAL	FIN.	REF. DES.	ITEM NO.
LIST OF MATERIAL						
SIGNATURES DATE						
<p>The information herein is the property of PERTEC CORPORATION and is to be held in confidence. It is to be returned to the company or destroyed when no longer needed. It is to be given to persons without specific written consent of PERTEC CORPORATION.</p> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ± XX ± ANGULAR XXX ± X ± BREAK ALL SHARP CORNERS APPROX. .010</p>						
PERTEC PERIPHERAL EQUIPMENT						
TITLE						
PCBA						
STK PRE AMP						
G						
<p>FINISH: MATEL: SIZE CODE IDENT NO. DWG NO. REV</p> <p>SEE L/M E 104816 B</p> <p>SCALE 2/1 DO NOT SCALE DWG SHEET 1 OF 1</p>						

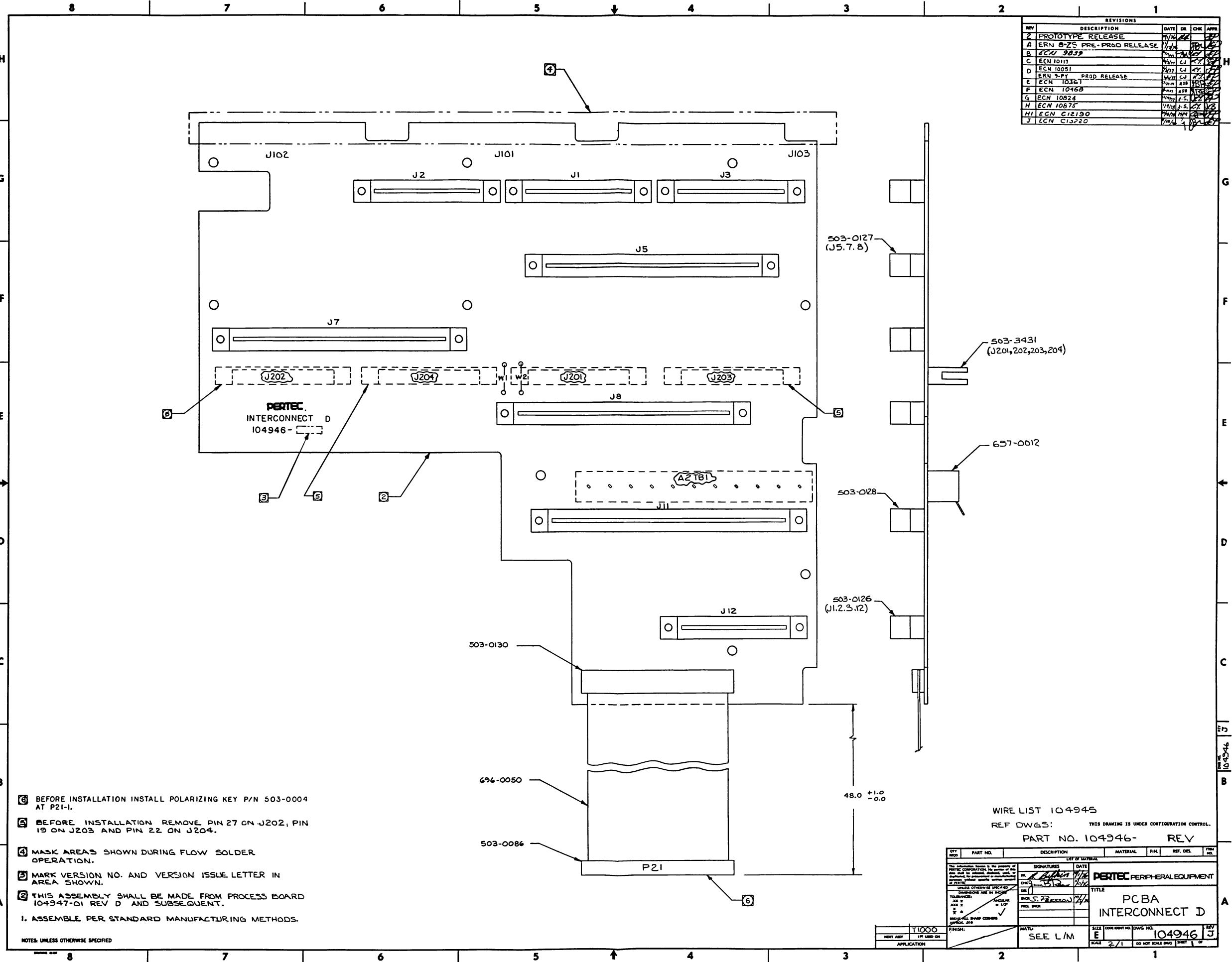
④ MAINTAIN MINIMUM AIR GAP OF .10 BETWEEN COMPONENT BODY AND BOARD

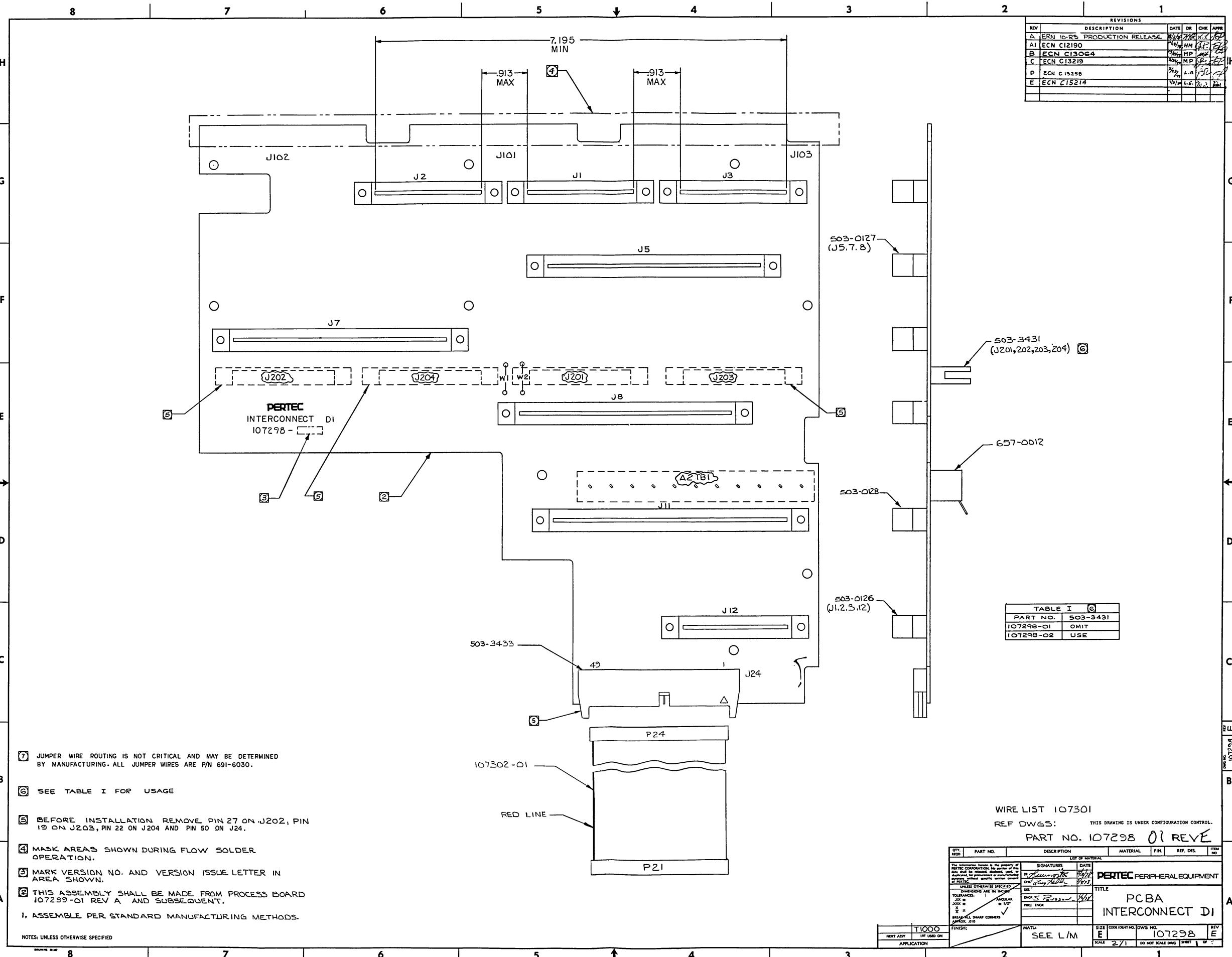
③ MARK VERSION NO. AND VERSION ISSUE LETTER IN AREA SHOWN.

② THIS ASSEMBLY SHALL BE MADE FROM PROCESS BOARD 104817-01 REV A AND SUBSEQUENT.

I. ASSEMBLE PER STANDARD MANUFACTURING METHODS

NOTES: UNLESS OTHERWISE SPECIFIED





8

7

6

5

4

3

2

1

D

D

C

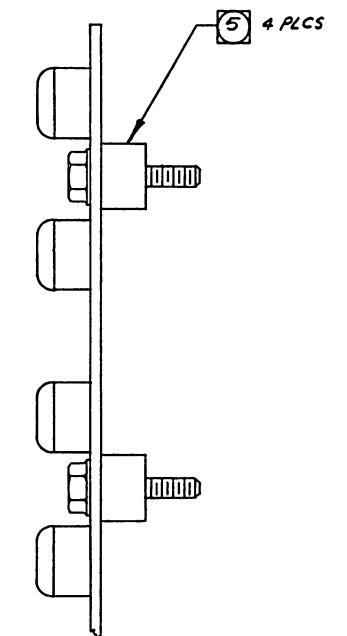
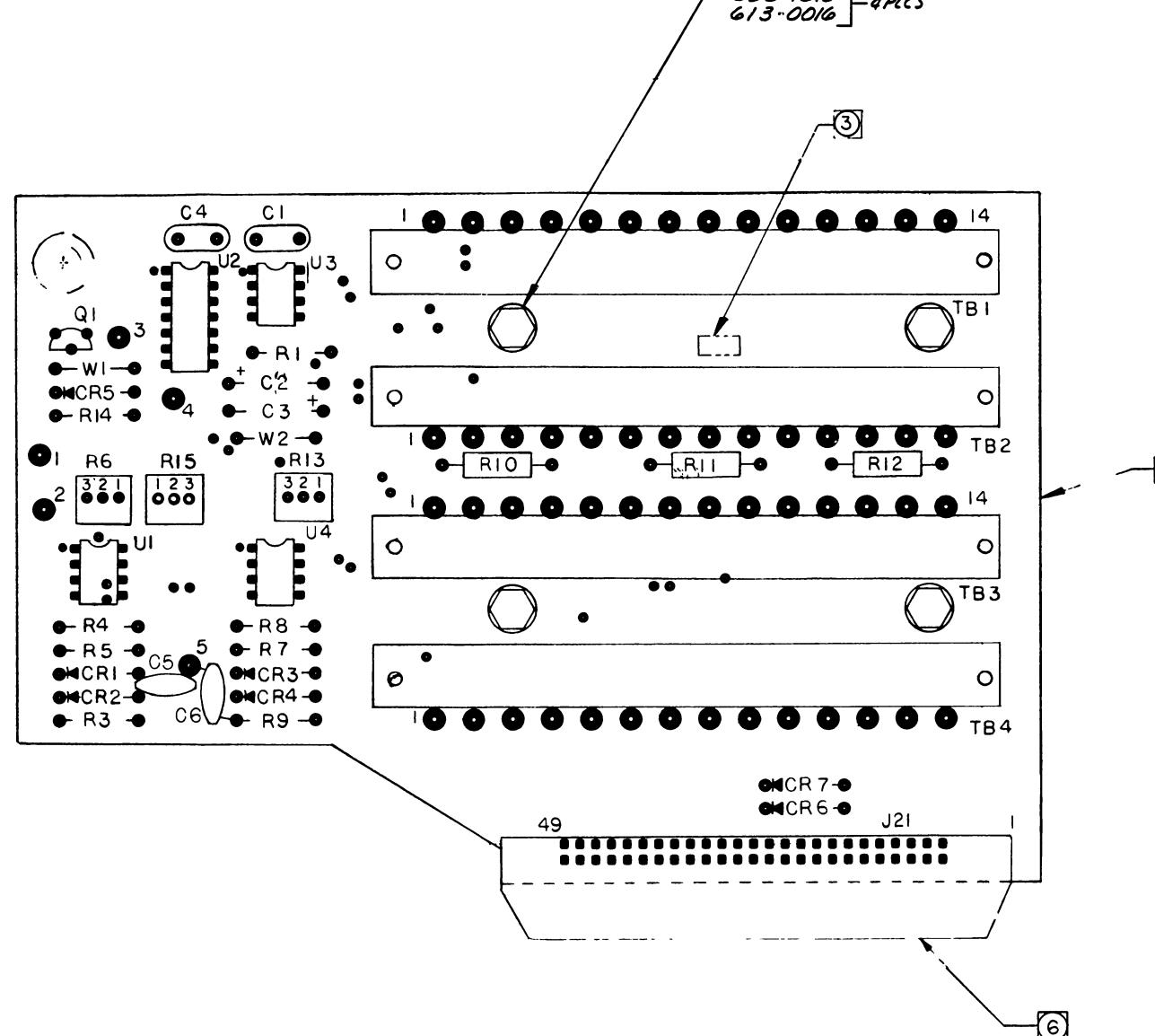
C

B

B

A

A



SCHEMATIC: 107189
REF DWGS:

6 BEFORE INSTALLATION REMOVE PIN 1 ON J21.

5 INSTALL SCREW 608-1610 INTO BUSHING 613-0016 HOLDING BUSHING UNTIL TIGHT OR FLUSH WITH BOTTOM OF BOARD (4 PLCS).

4 THIS ASSEMBLY SHALL BE MADE FROM PROCESS BOARD 107101-01 REV A AND SUBSEQUENT.

3 MARK VERSION NO. AND VERSION ISSUE LETTER IN AREA SHOWN.

2 THIS ASSEMBLY SHALL BE MADE FROM PROCESS BOARD 104952-01 REV A AND SUBSEQUENT.

1 ASSEMBLE PER STANDARD MANUFACTURING METHODS.

NOTES: UNLESS OTHERWISE SPECIFIED

PART NO. 104951- REV

THIS DRAWING IS UNDER CONFIGURATION CONTROL.

PERTEC PERIPHERAL EQUIPMENT

TITLE

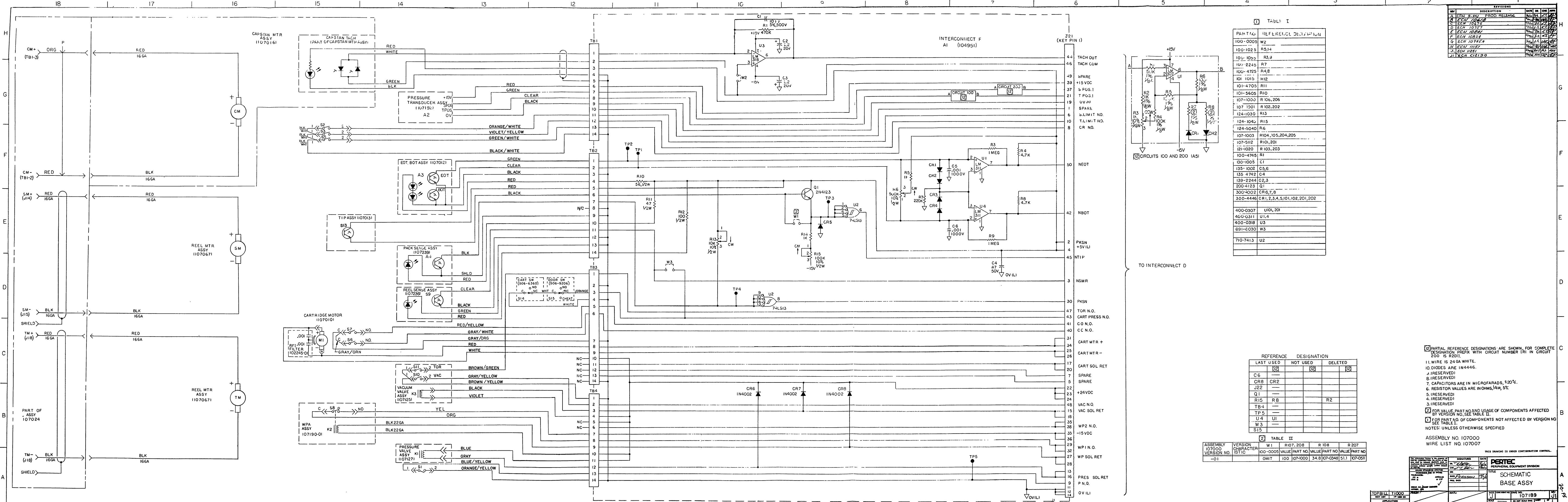
PCBA

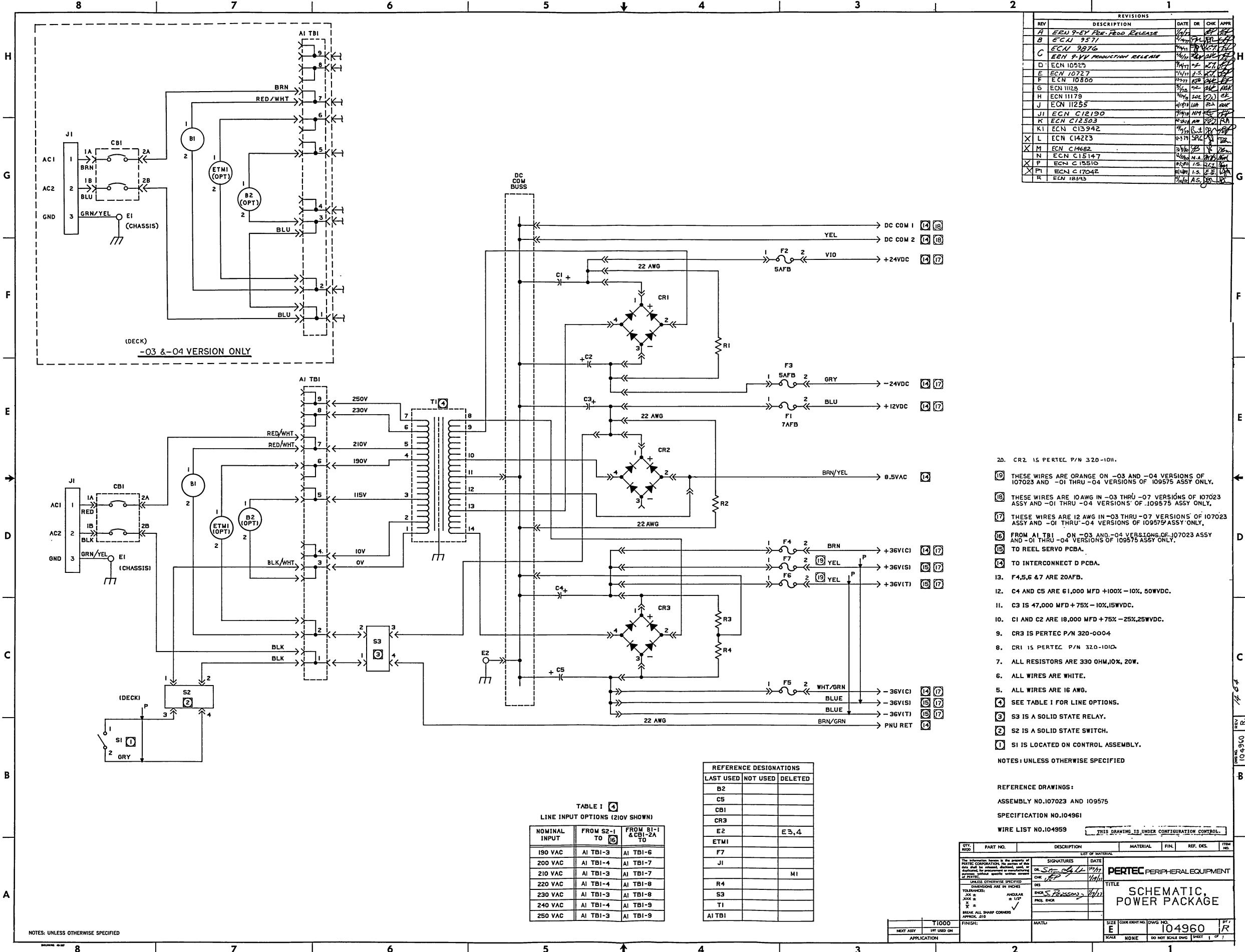
INTERCO CT F

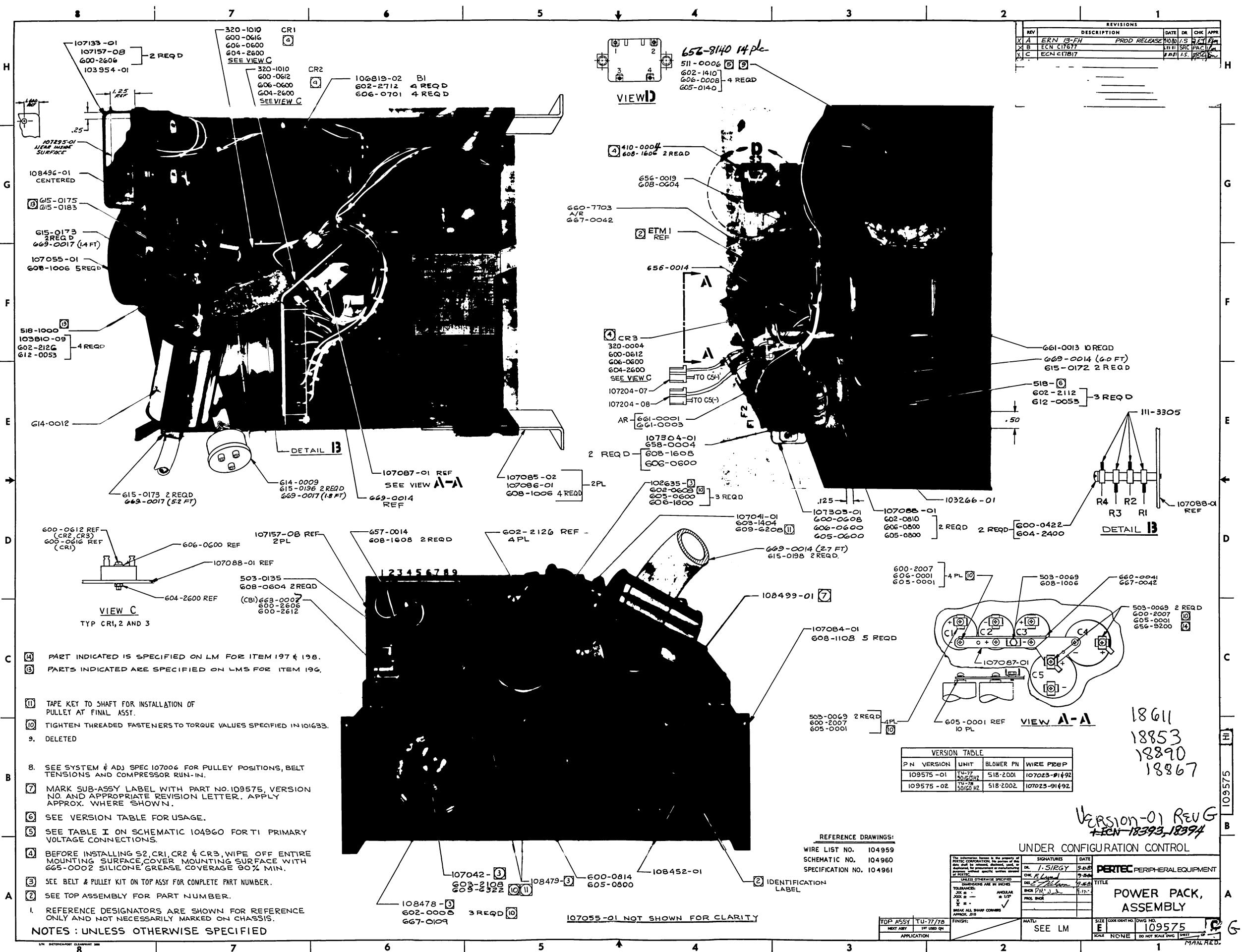
SIGNATURES		DATE
DR. TEKNIKON		10/16
CHK R. 10826		10/16
DES		
ENGR S. Person		10/16
PROJ. ENGR		

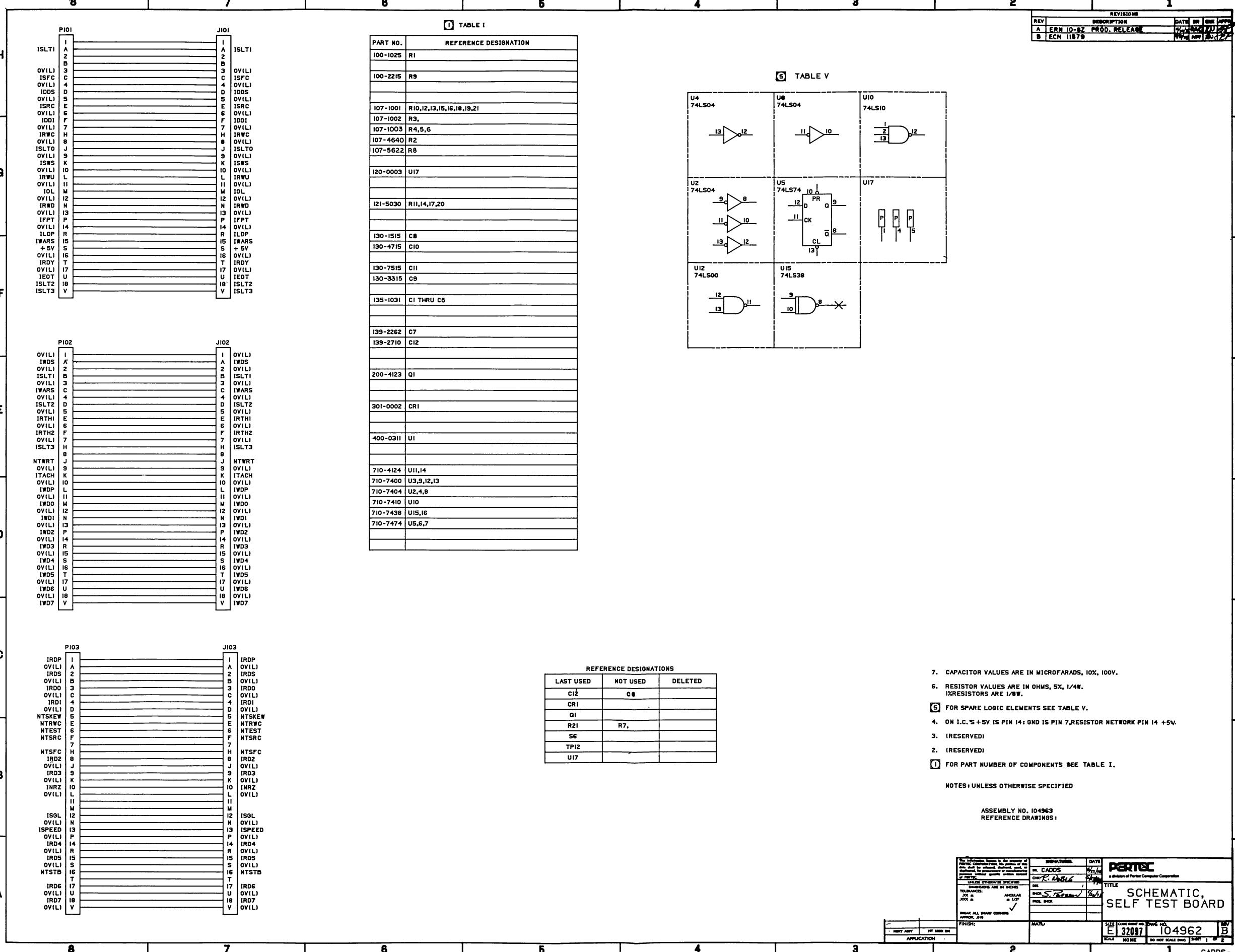
MATL:	SEE L/M
D	104951 J1

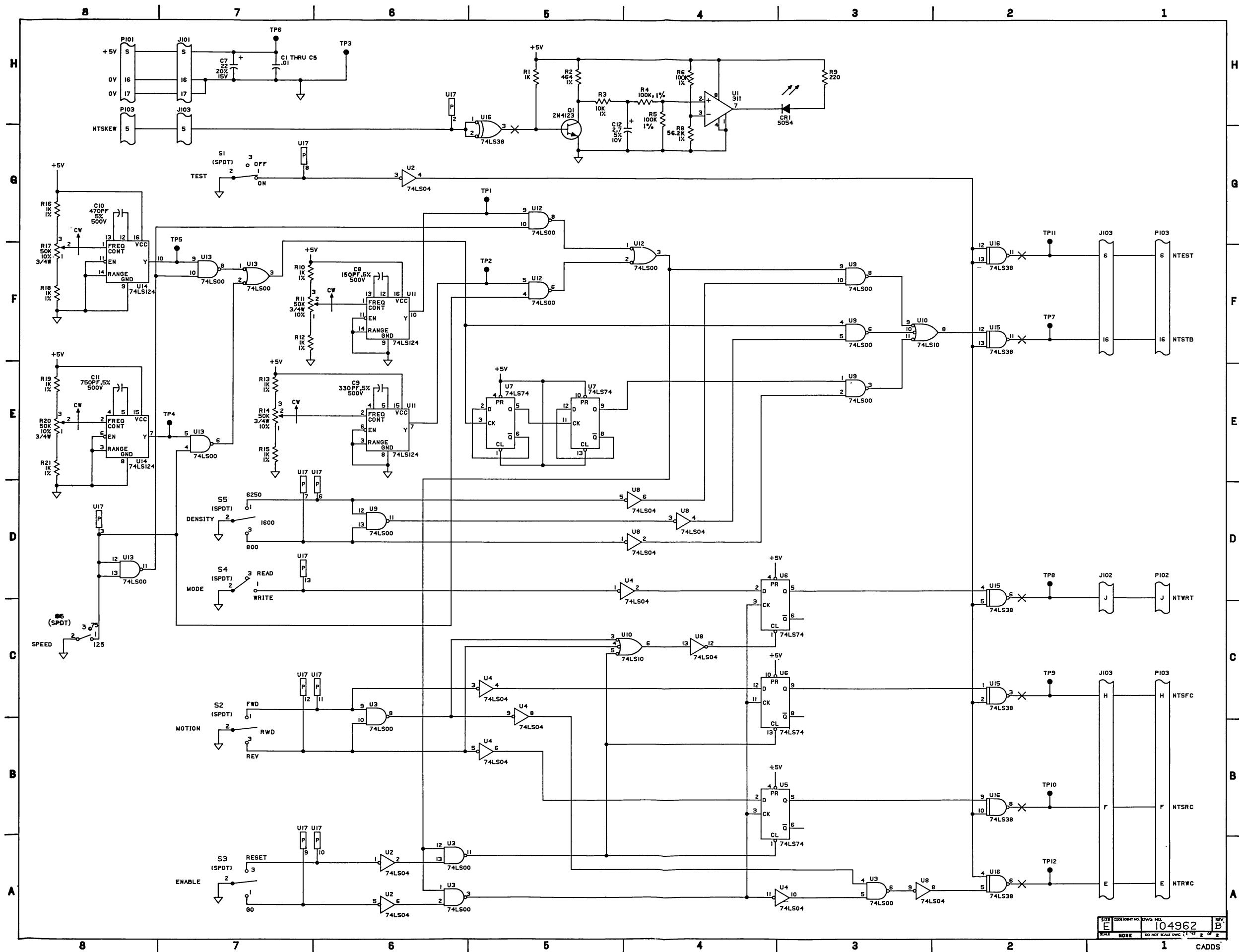
SIZE	CODE IDENT NO.	DWG NO.	REV
2	1	DO NOT SCALE DWG	1 OF 2











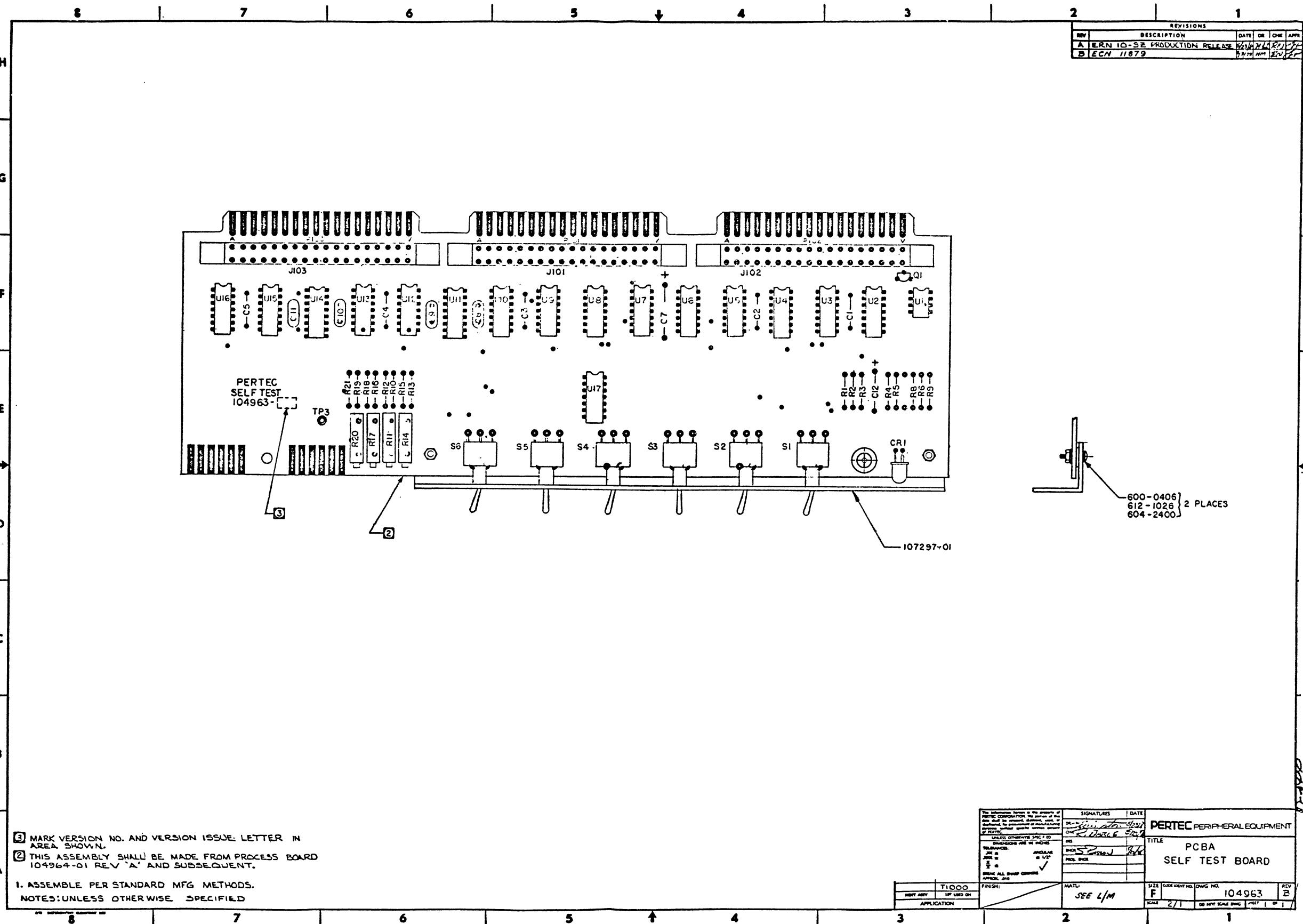


TABLE I

PART NO.	REFERENCE DESIGNATION
100-1015	R5,6,7,8,9,10,11,17,18,19,20
100-1025	R3
100-1035	R16,21
100-1045	R1,4,15
100-2215	R22
100-2225	R14
100-3315	R23
100-4725	R12,13
107-2151	R2

I20-0003

U6,96,162,224

I30-1015

C27

I30-3305

C28

I35-1002

C40

I35-1031

CI THRU 26,32,39,41,42,43,48,49,50,51

I35-1032

C38

I39-2244

C30,31,44,45,46,47

I39-2262

C29

300-4446

CRI

330-0475

VRI

400-0318

U91

400-0319

U21

514-0003

SI

524-1000

Y1

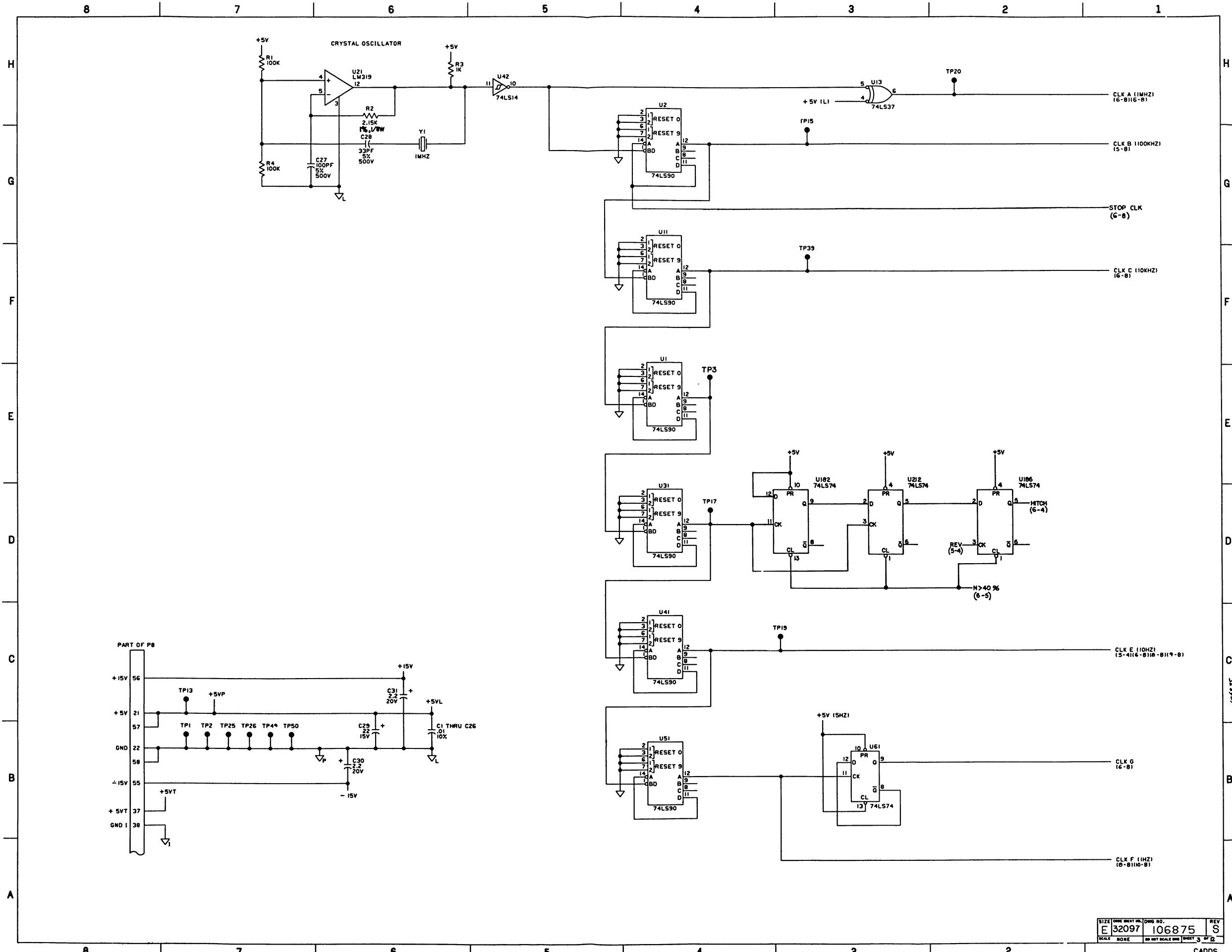
700-5452

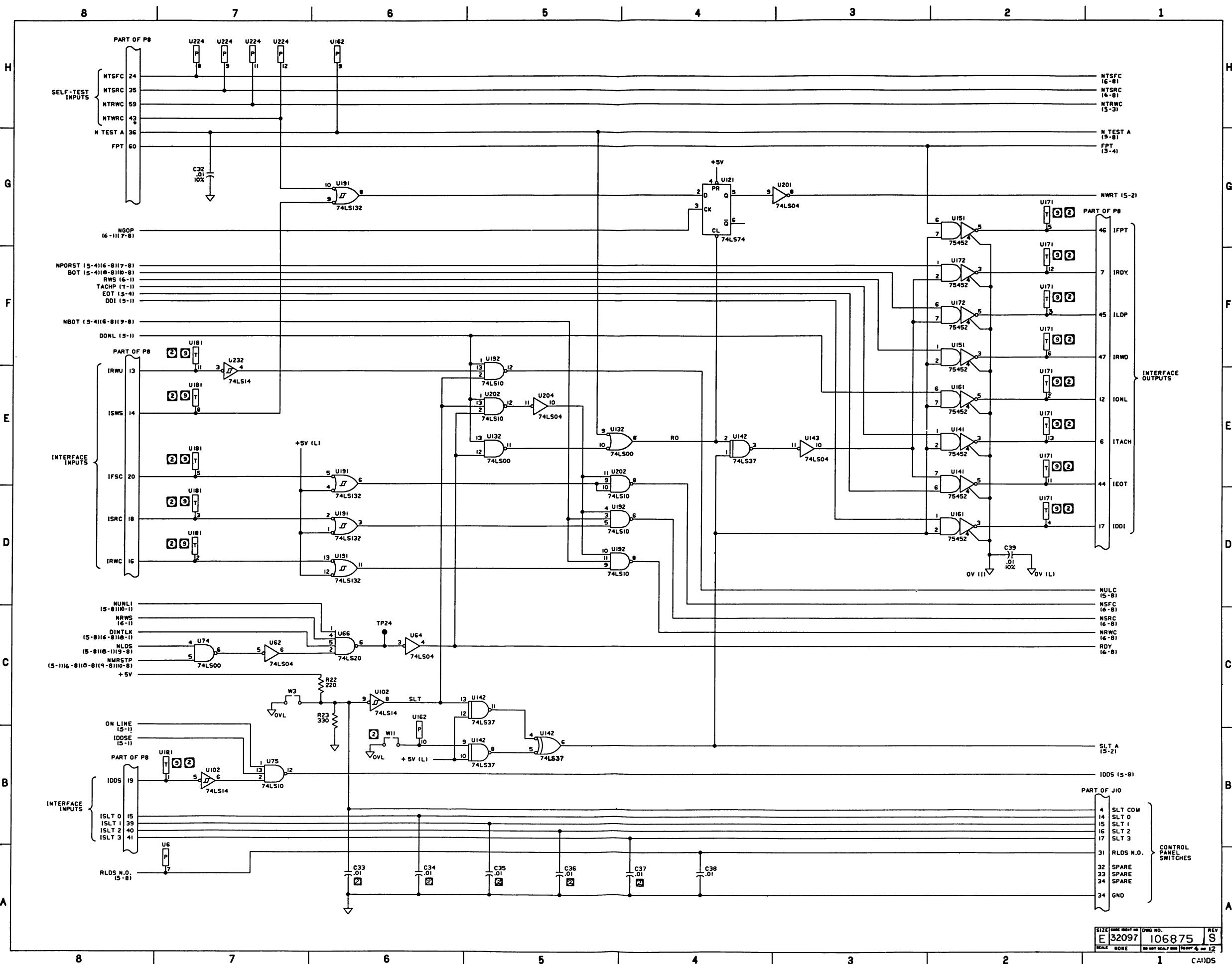
U4,5,14,15,141,151,161,172,231

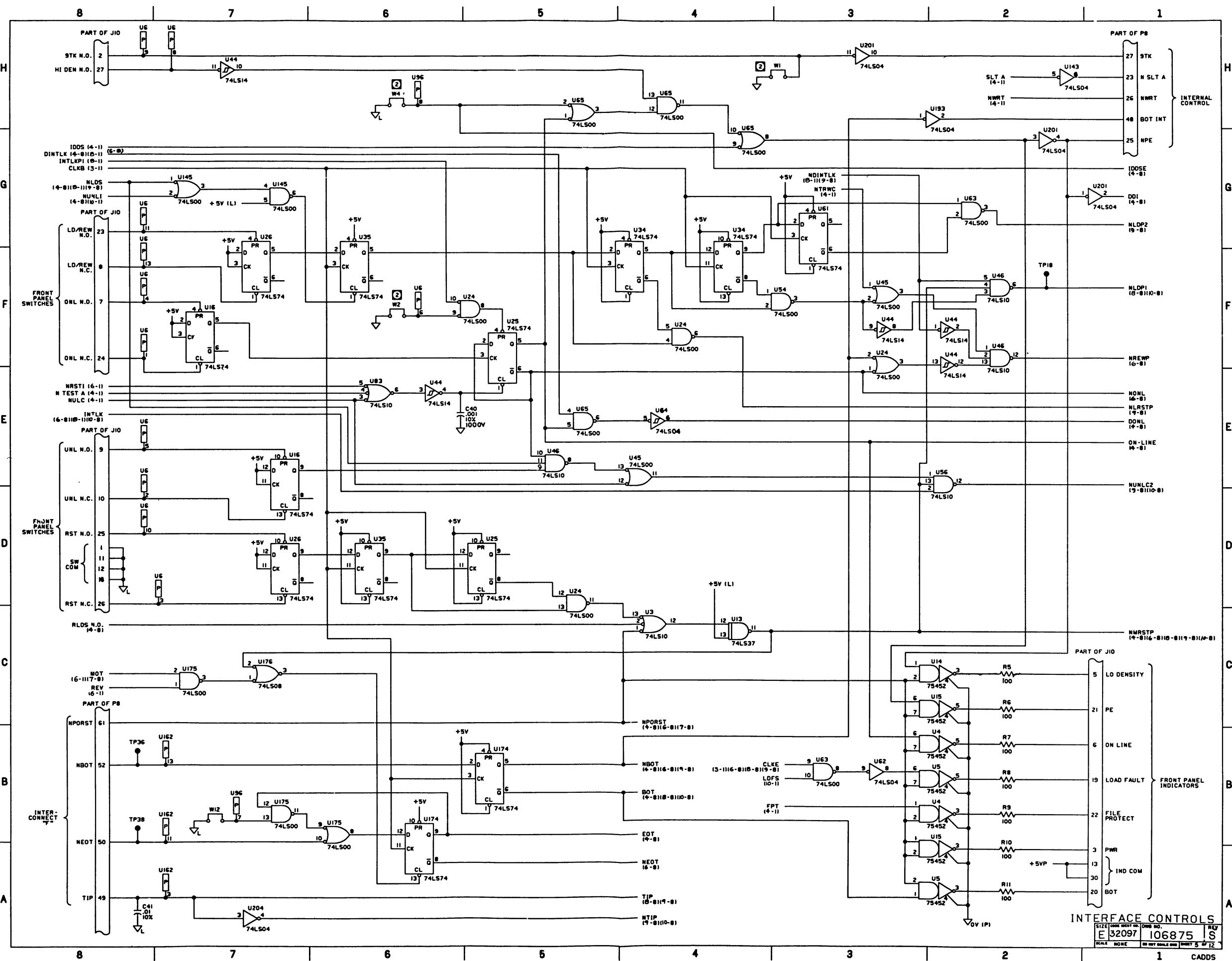
TABLE II (2)

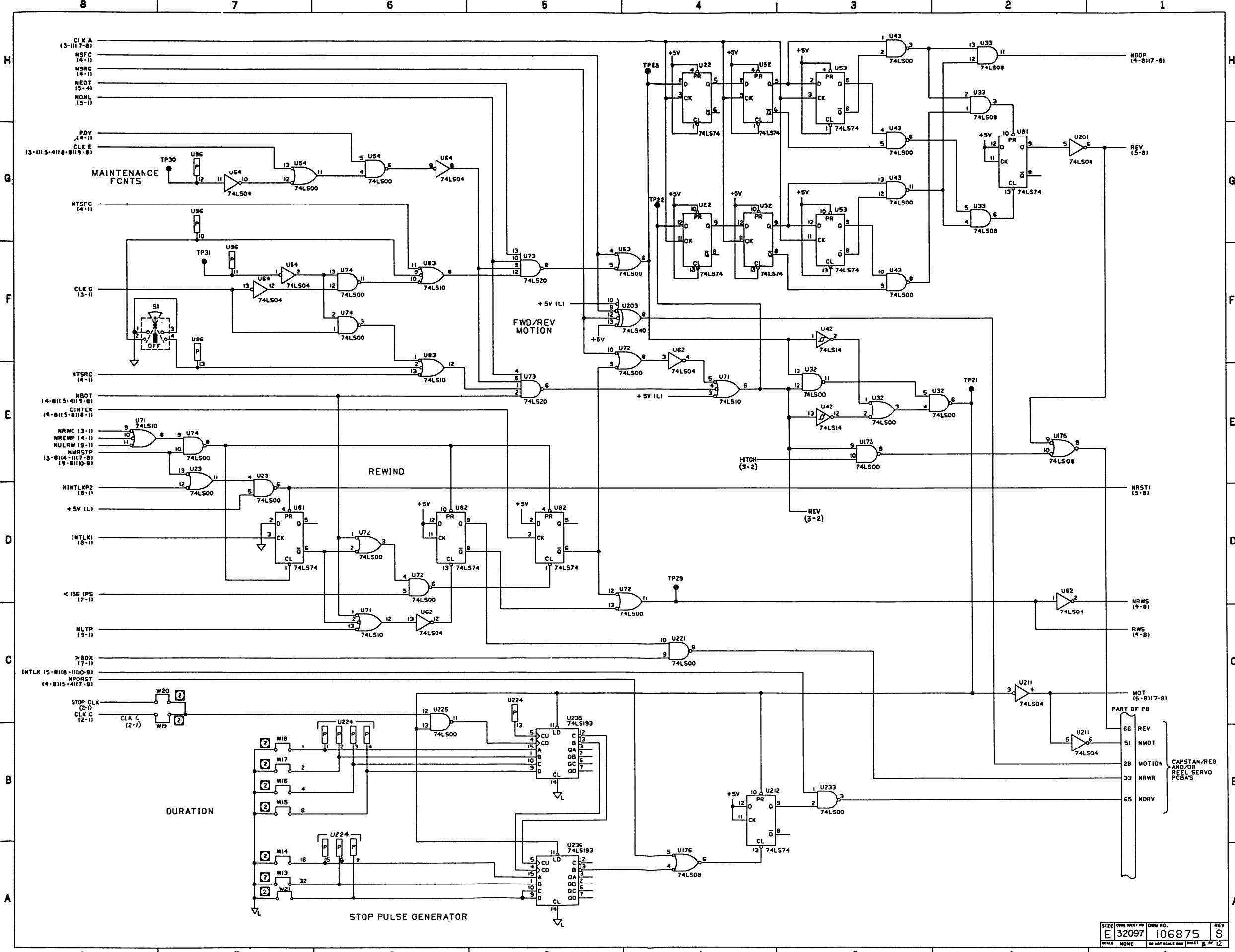
9

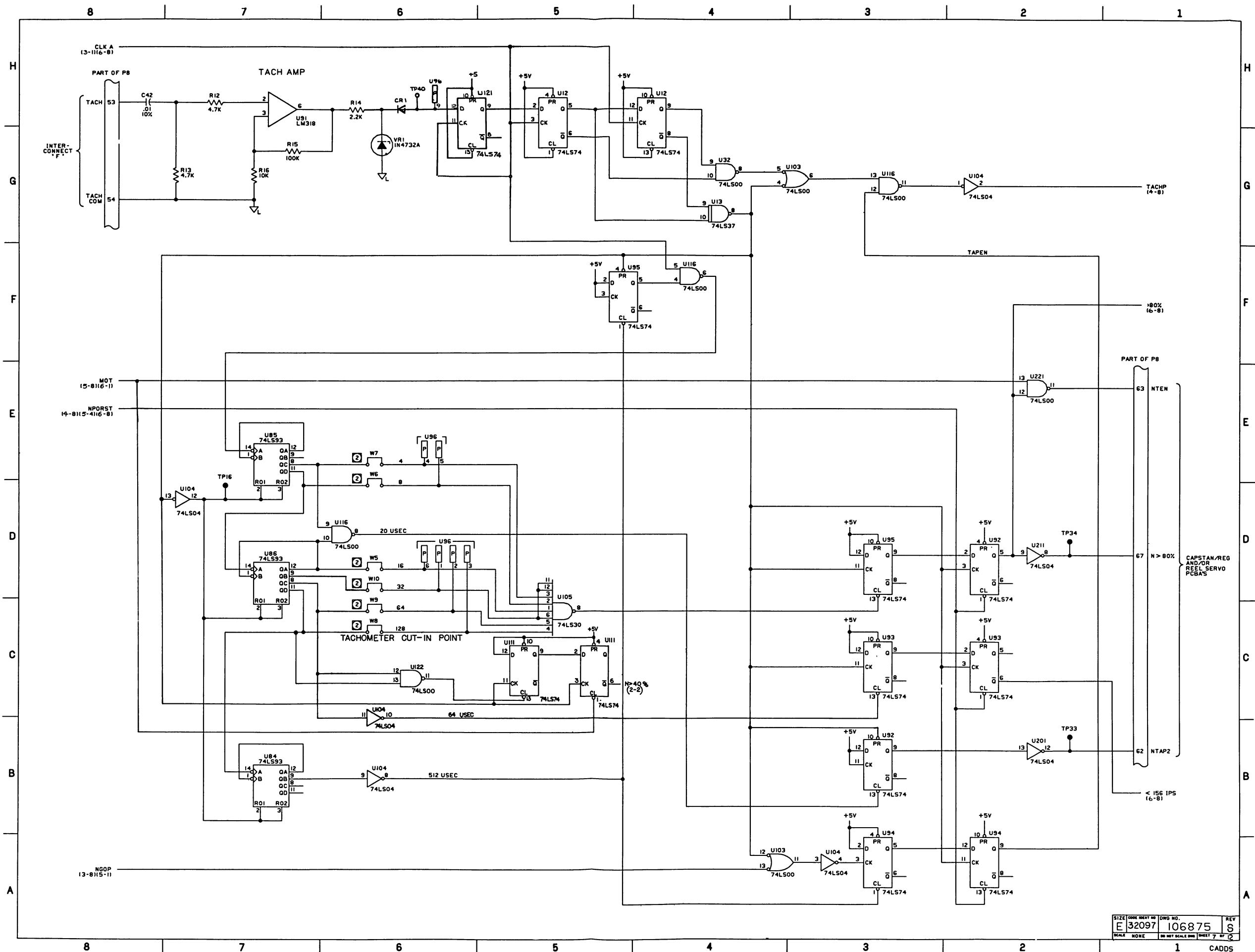
MODEL	SPD (IPS)	OPTION CODE	ASSEMBLY 106876 VERSION NO.	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	U171, U181	C33,34,35,36,37
STD	I25	A	-01	USE	USE	OMIT	USE	OMIT	OMIT	OMIT	OMIT	USE	USE	OMIT	USE	OMIT	OMIT	OMIT	OMIT	USE	OMIT	USE	OMIT	USE	OMIT	OMIT
STD	I25	B,C	-02	USE	USE	USE	OMIT	OMIT	OMIT	OMIT	OMIT	USE	USE	OMIT	USE	OMIT	USE	OMIT	OMIT	USE	OMIT	USE	OMIT	USE	USE	USE
STD	I25	A,C	-03	USE	USE	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT	USE	USE	OMIT	USE	OMIT	OMIT	OMIT	OMIT	USE	OMIT	USE	OMIT	USE	OMIT	OMIT
GCR	I25	A	-11	USE	USE	OMIT	USE	OMIT	OMIT	OMIT	USE	OMIT	USE	USE	OMIT	USE	USE	OMIT	USE	OMIT	USE	OMIT	USE	OMIT	OMIT	OMIT
GCR	I25	B,C	-12	USE	USE	USE	OMIT	USE	OMIT	OMIT	OMIT	USE	USE	OMIT	OMIT	USE	USE	OMIT	OMIT	OMIT	USE	OMIT	USE	OMIT	USE	USE
GCR	I25	A,C	-13	USE	USE	OMIT	OMIT	OMIT	OMIT	OMIT	USE	OMIT	USE	USE	OMIT	USE	USE	OMIT	USE	OMIT	OMIT	USE	OMIT	USE	OMIT	OMIT
STD	75	A	-21	USE	USE	OMIT	USE	OMIT	OMIT	USE	USE	OMIT	USE	USE	OMIT	OMIT	OMIT	USE	USE	USE	USE	USE	OMIT	USE	OMIT	OMIT
STD	75	B,C	-22	USE	USE	USE	OMIT	OMIT	OMIT	USE	USE	OMIT	USE	USE	OMIT	OMIT	OMIT	USE	USE	USE	USE	USE	OMIT	USE	OMIT	OMIT
GCR	75	A	-31	USE	USE	OMIT	USE	USE	USE	USE	USE	USE	USE	USE	OMIT	USE	OMIT	USE	OMIT	OMIT						
GCR	75	B,C	-32	USE	USE	USE	OMIT	USE	USE	USE	USE	USE	USE	USE	OMIT	OMIT	USE	USE	USE	USE	USE	USE	OMIT	USE	OMIT	OMIT

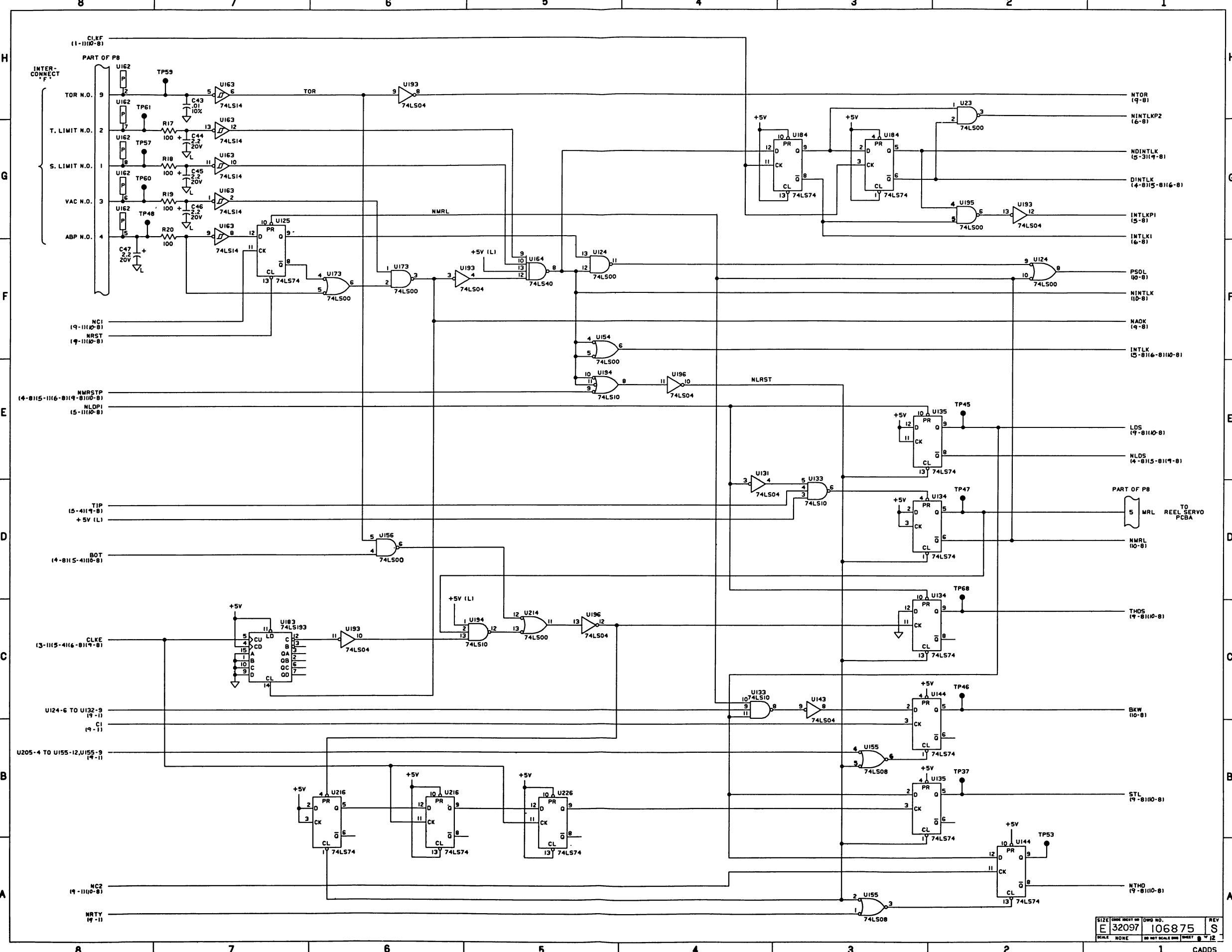


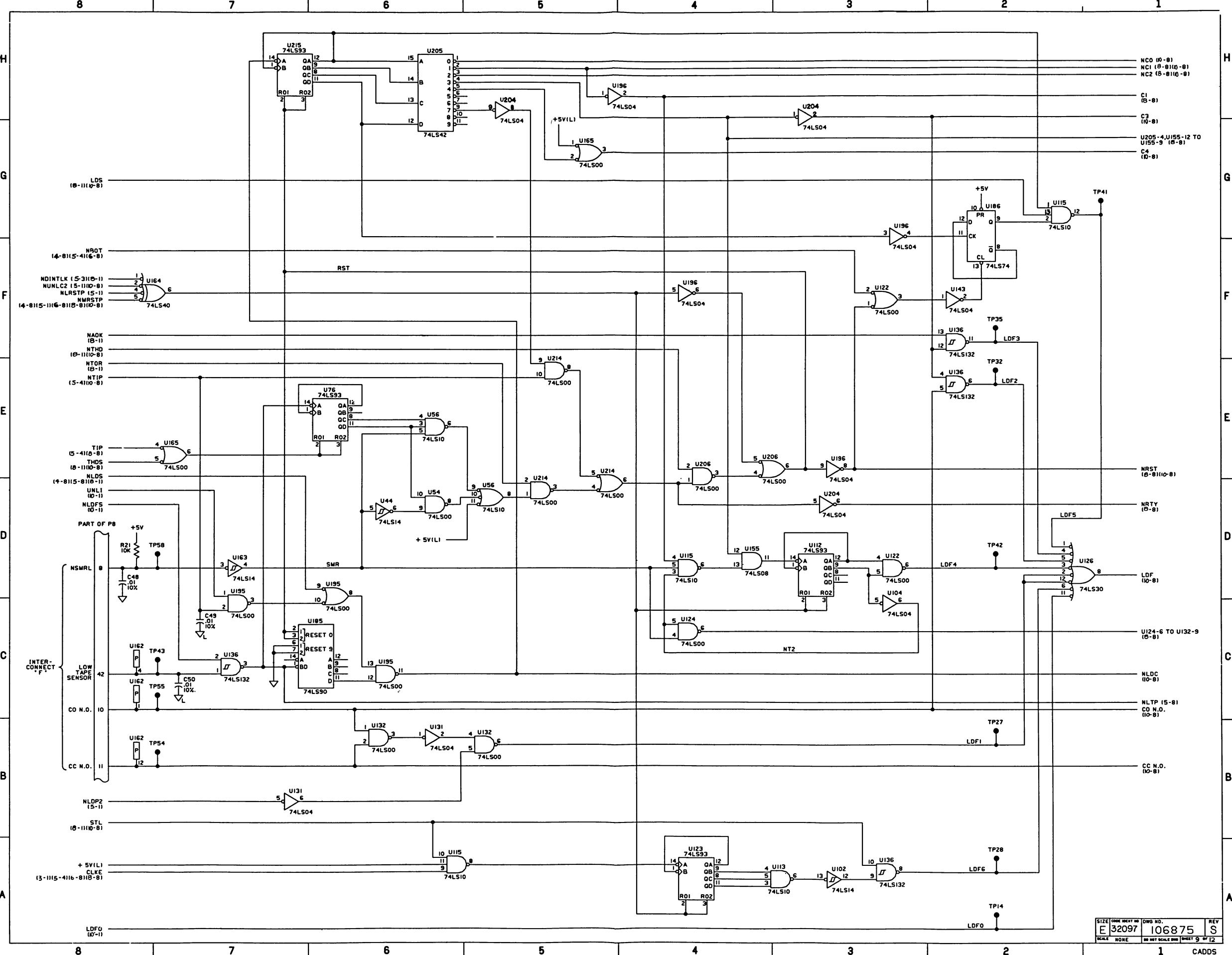


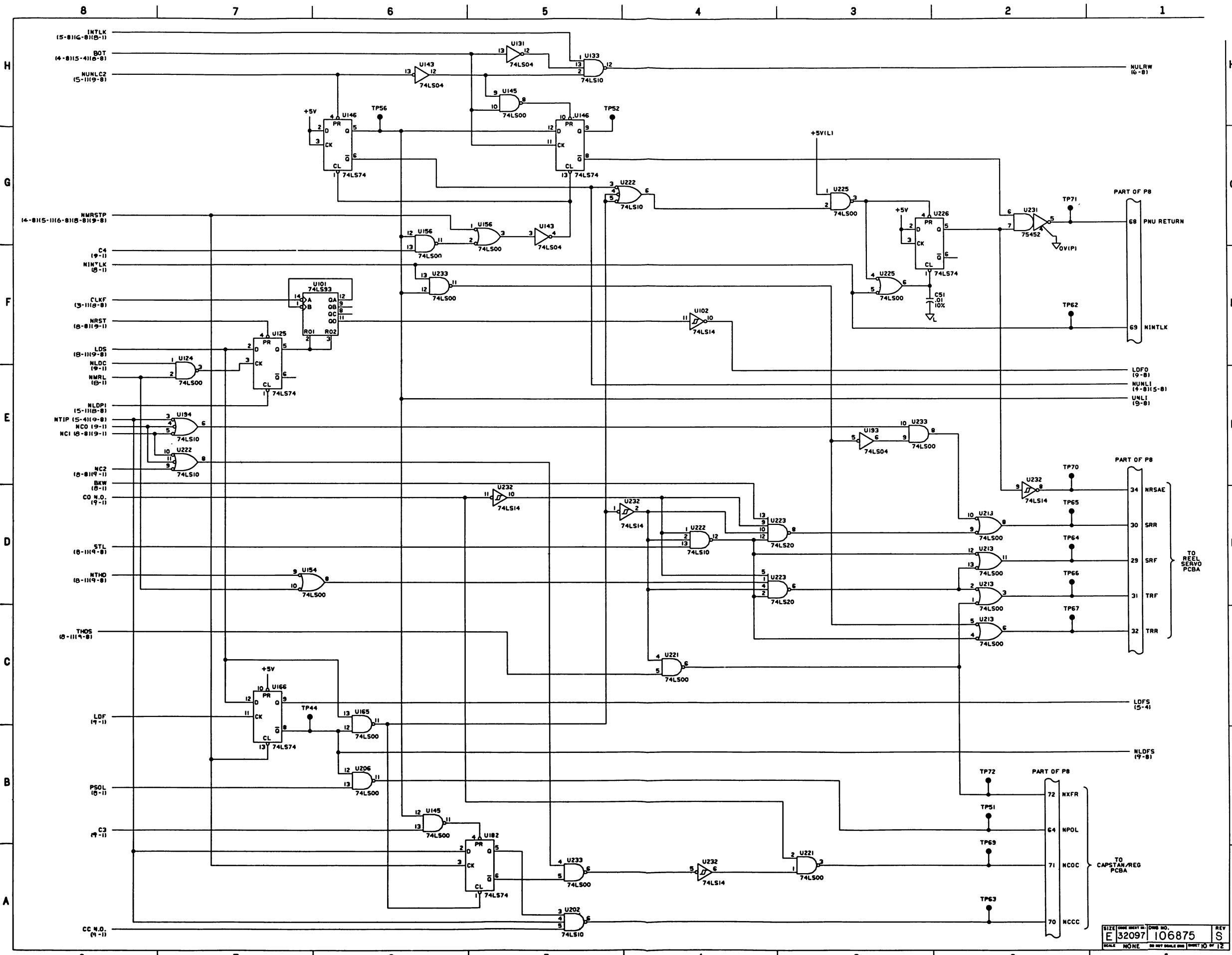


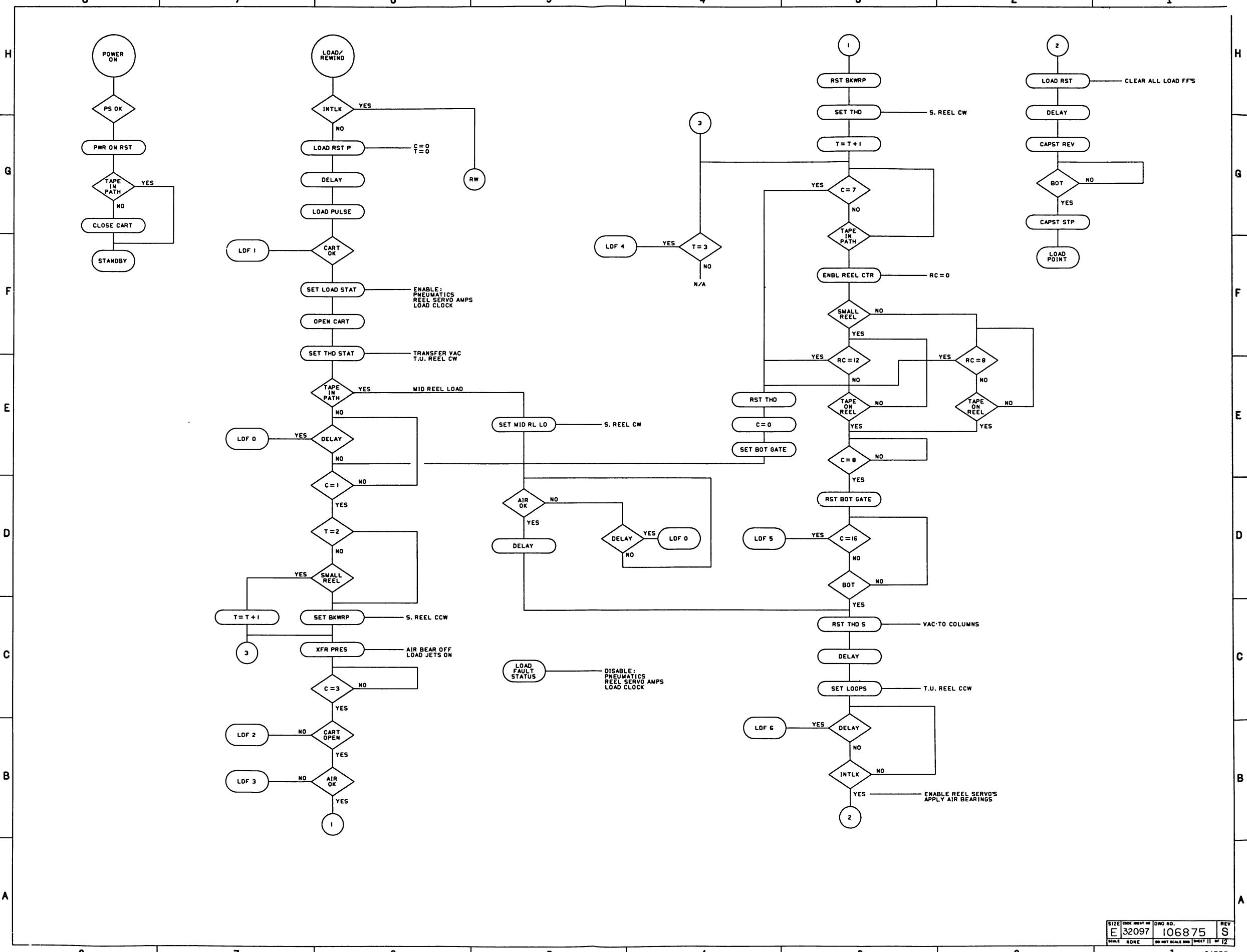


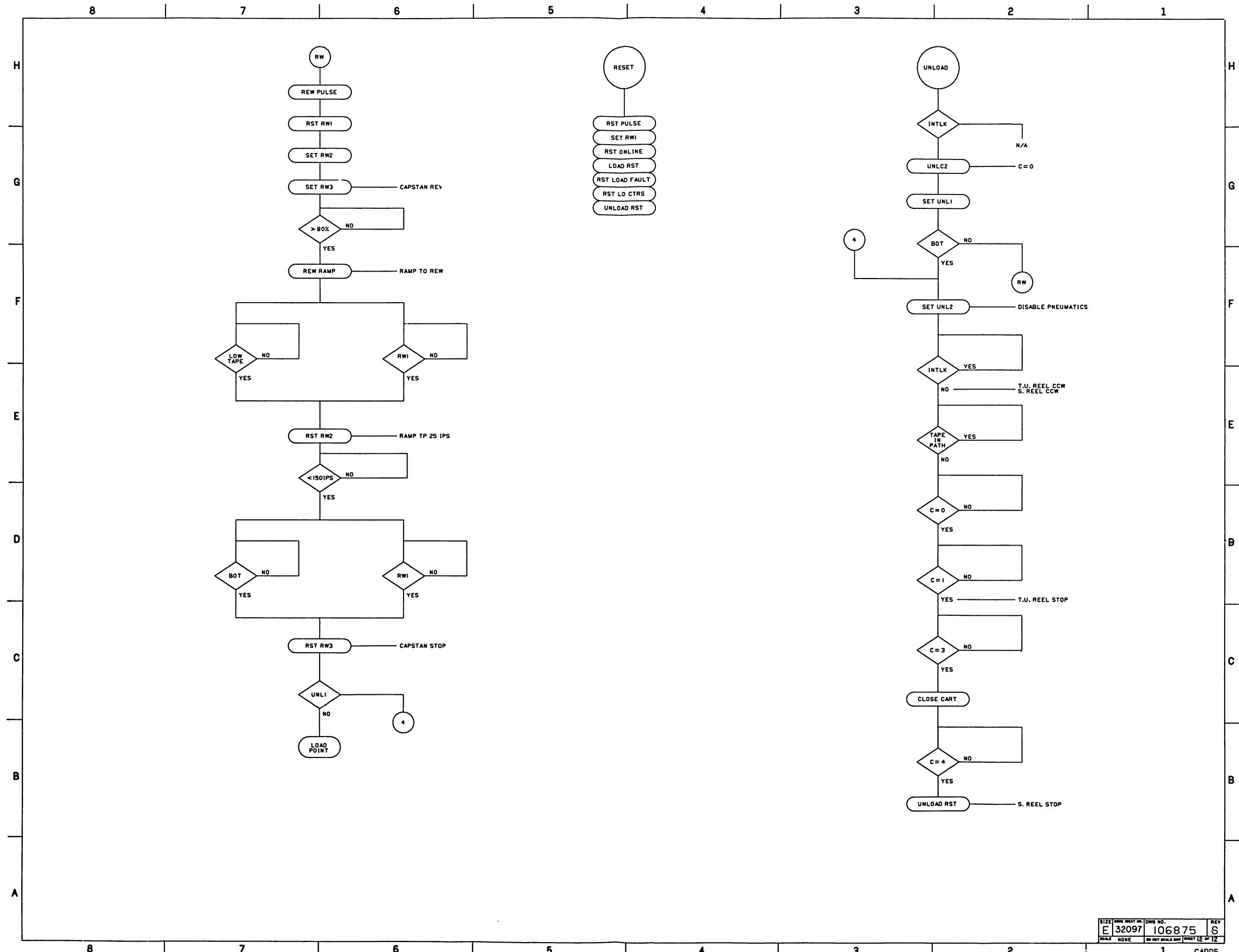


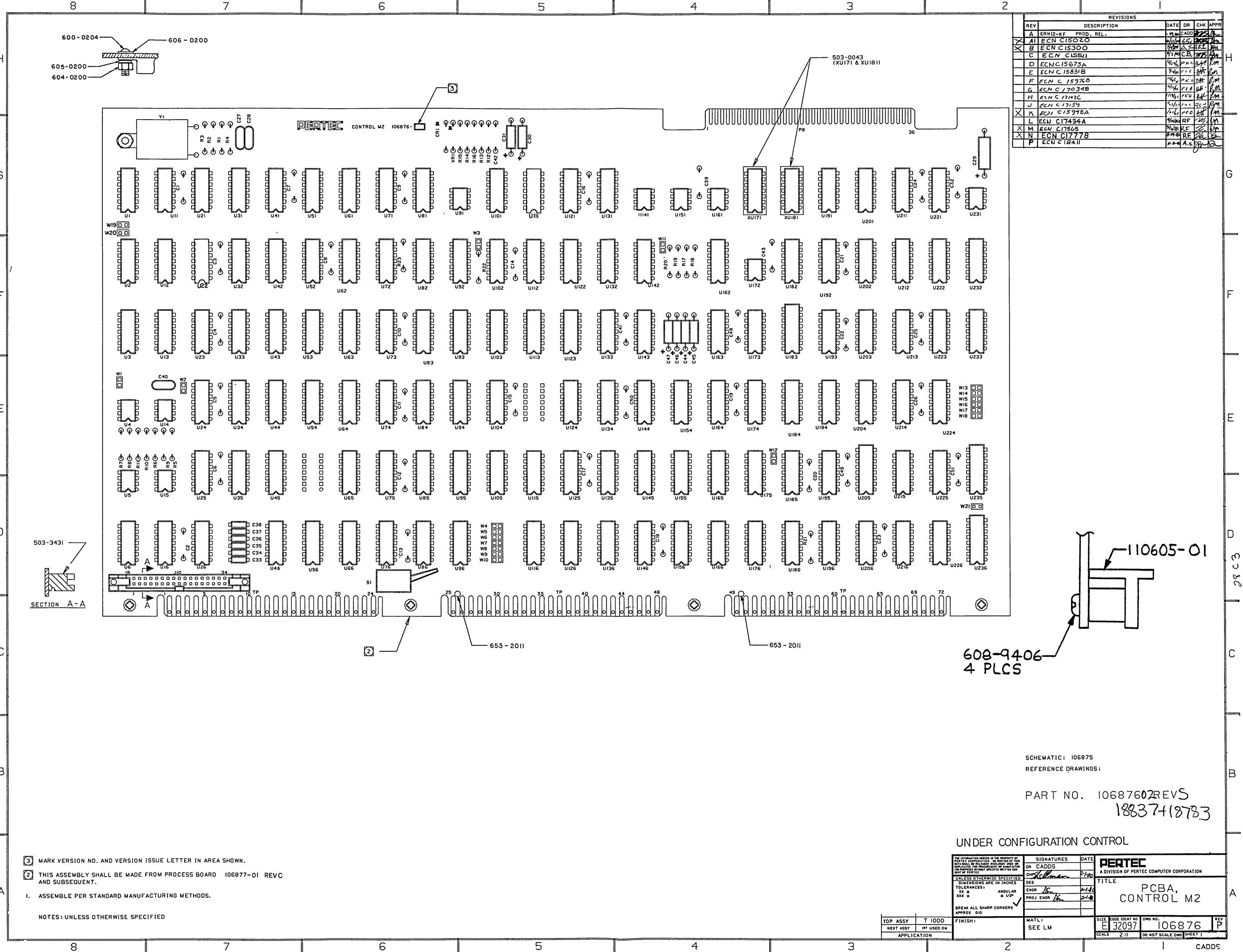




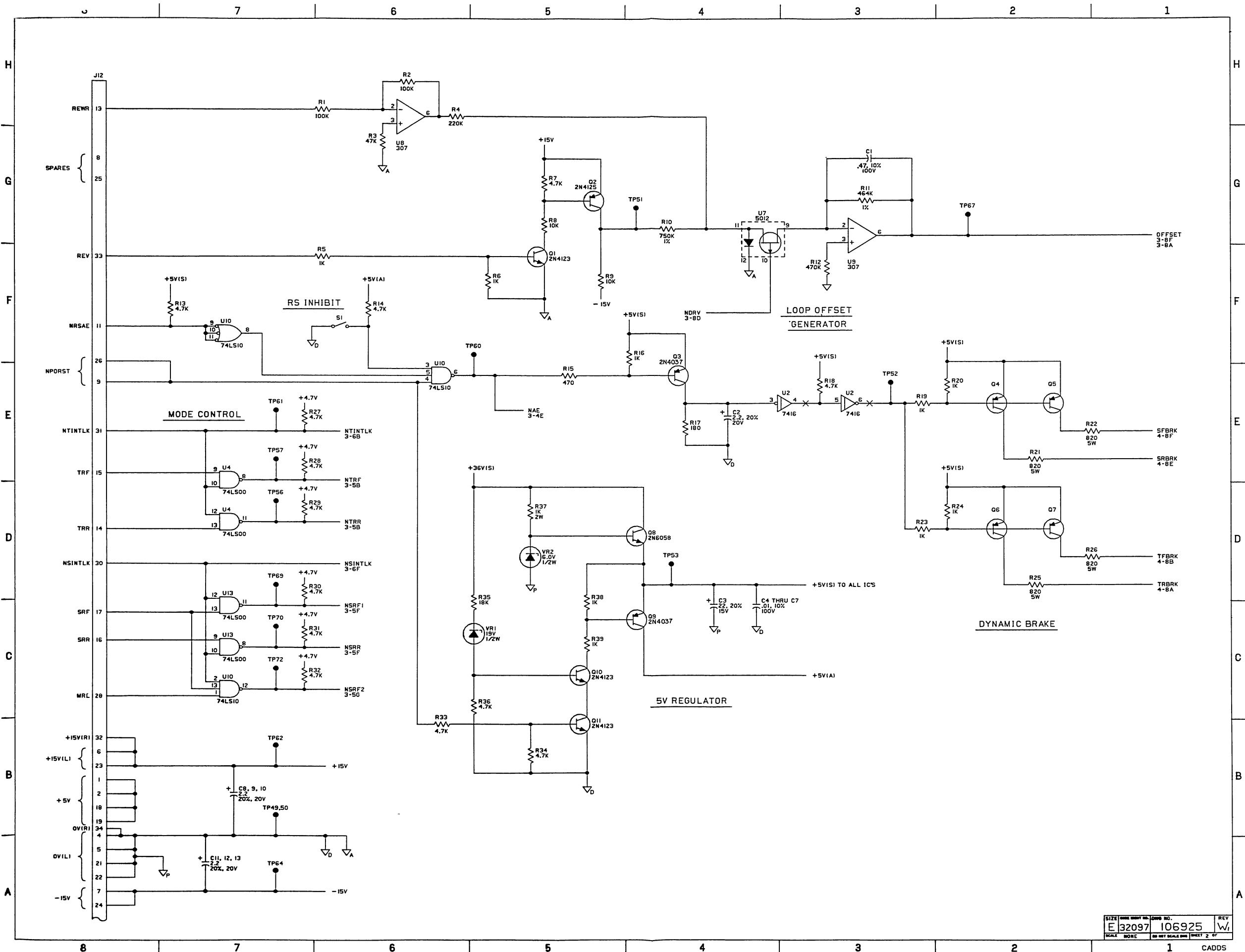


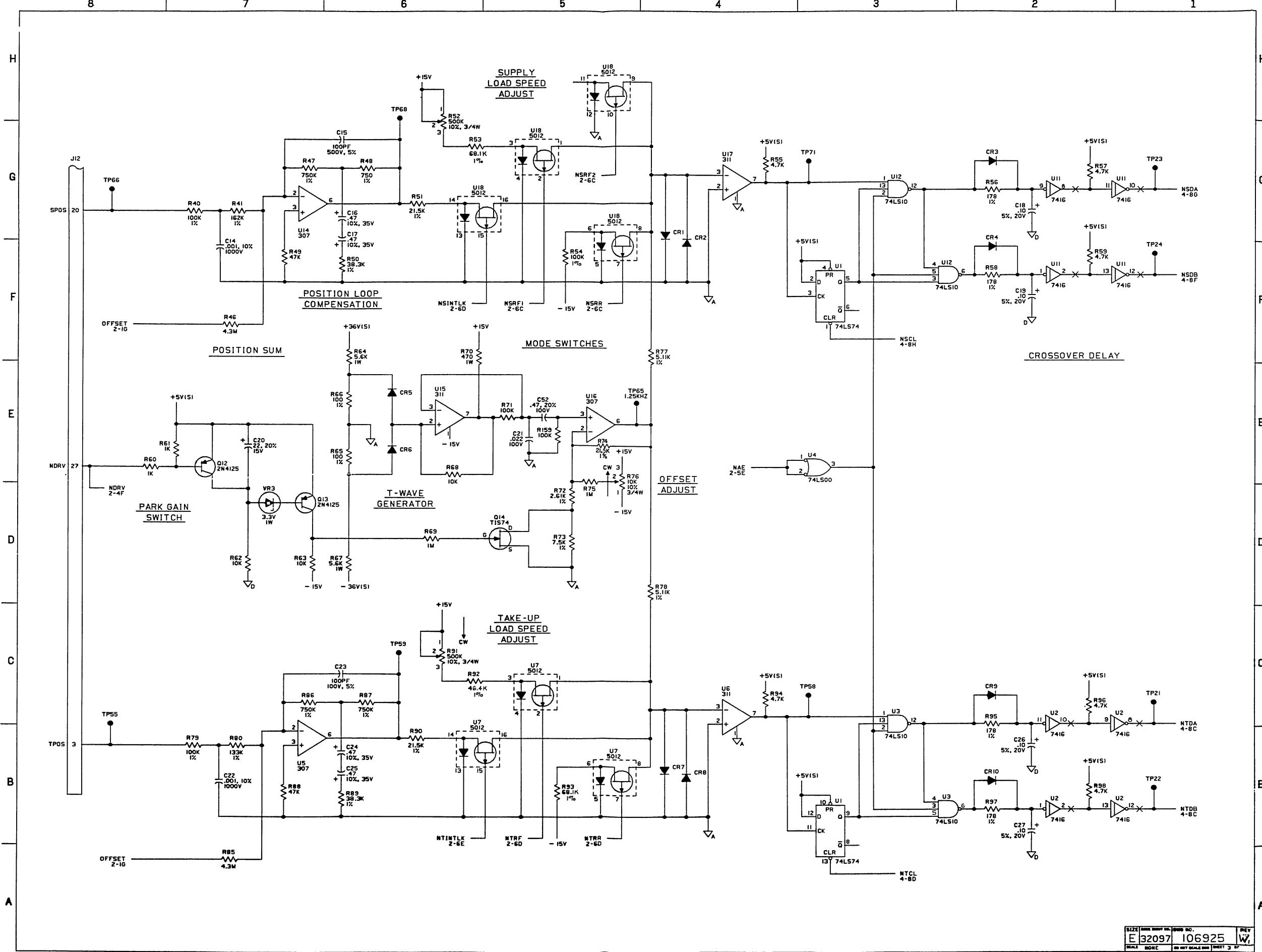


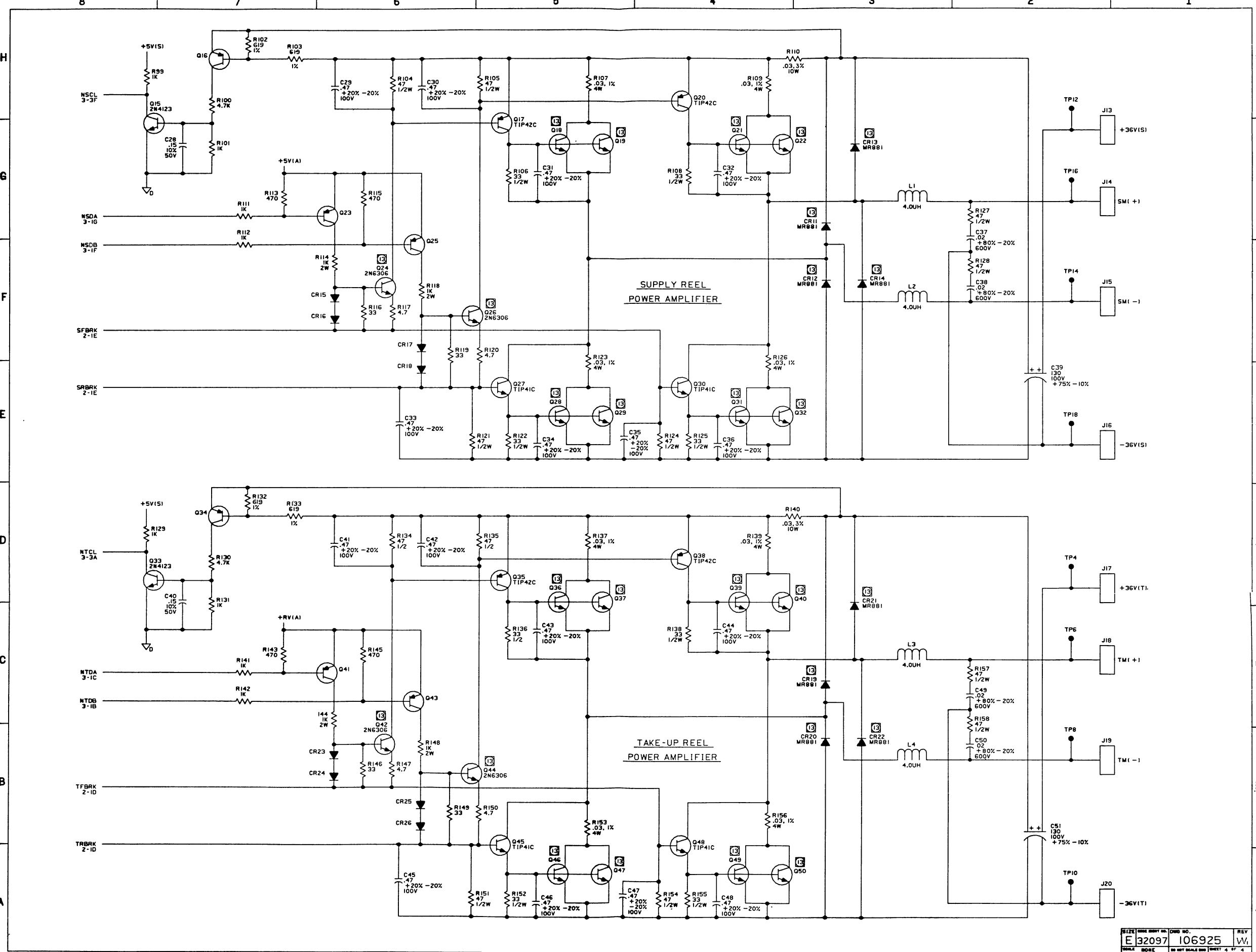


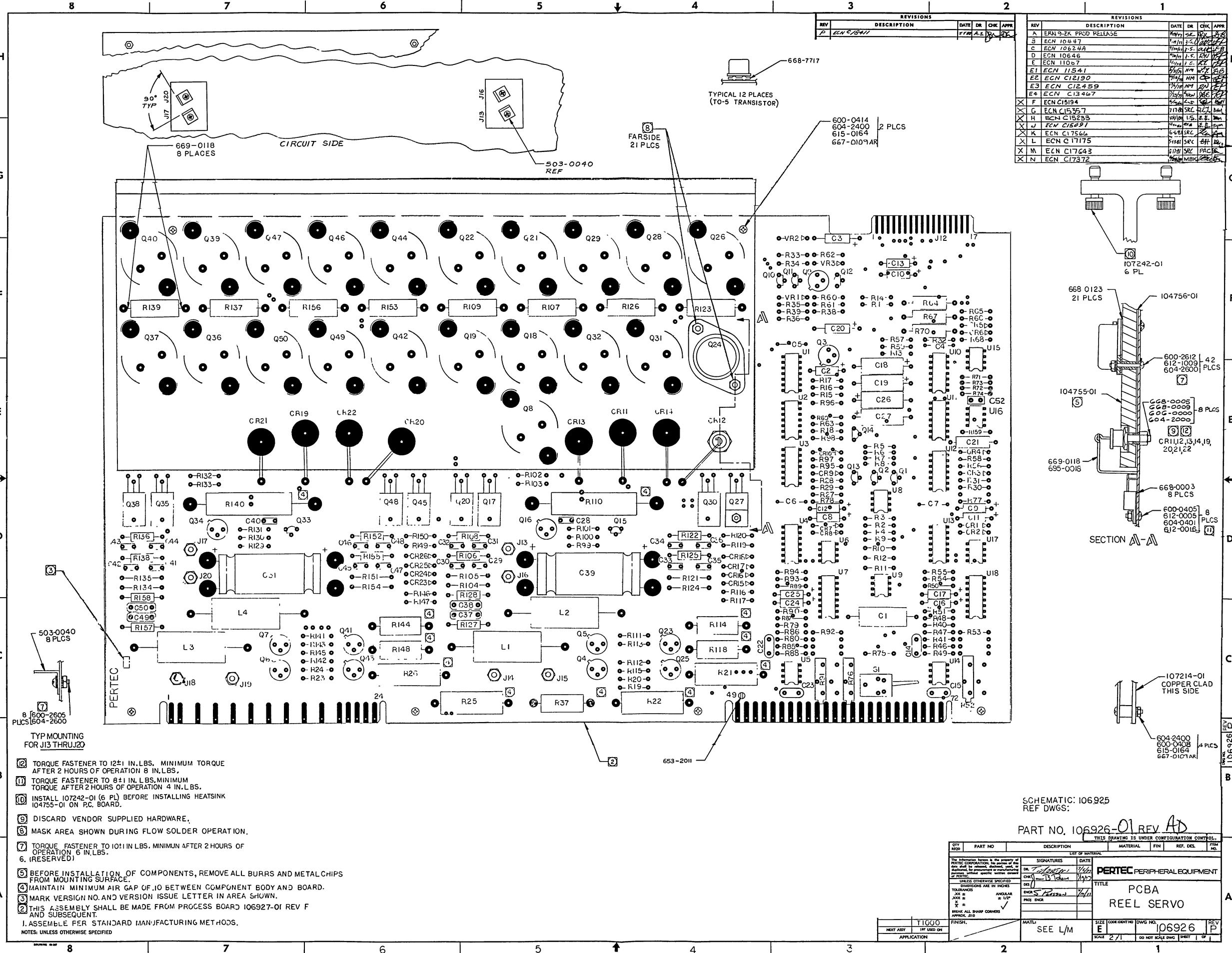


BLANK



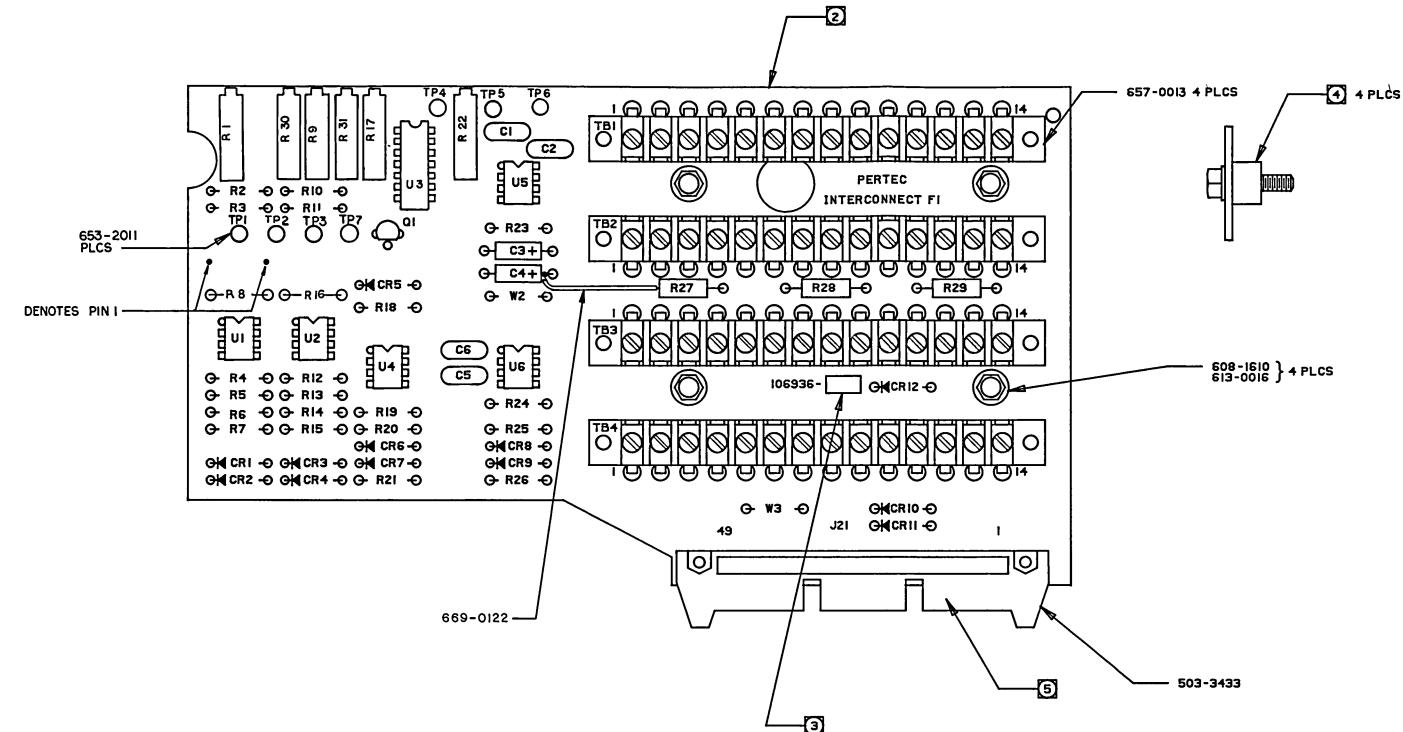






BLANK

REVISIONS						
REV	DESCRIPTION	DATE	DR	CHK	APPF	
PROTOTYPE CHANGES 1 & 2 WERE INCORPORATED						
A	ERN 10-KZ PRODUCTION RELEASE	2/10/80	RAS	2/10/80		
A1	ECN C12190	2/10/80	HM	2/10/80		
B	ECN C13313A	2/10/80	MP	2/10/80		
C	ECN C14440	2/10/80	SOP	2/10/80		
X	ECN C14772	2/10/80	15-1	2/10/80		
X	ECN C13473	2/10/80	15-1	2/10/80		
X	ECN C17470	2/10/80	15-1	2/10/80		
F	ECN C17563	2/10/80	C B	2/10/80		
G	ECN C18113	2/10/80	MBK	2/10/80		



SCHEMATIC: 107307
REF DWGS:

PART NO. 106936-0 REV L

- 5** BEFORE INSTALLATION REMOVE PIN 1 ON J21.
- 4** INSTALL SCREW INTO BUSHING, HOLDING BUSHING UNTIL TIGHT OR FLUSH WITH BOTTOM OF BOARD.
- 3** MARK VERSION NO. AND VERSION ISSUE LETTER IN AREA SHOWN.
- 2** THIS ASSEMBLY SHALL BE MADE FROM PROCESS BOARD 106937-01 REV AND SUBSEQUENT.
1. ASSEMBLE PER STANDARD MANUFACTURING METHODS.

THIS DRAWING IS UNDER CONFIGURATION CONTROL.

The information herein is the property of PERTEC CORPORATION. No portion of the information contained herein may be reproduced, disclosed, or otherwise distributed without the prior written consent of PERTEC CORPORATION.	
SIGNATURES	
DL. CADDIS COK: <u>7/1/00</u>	
DATE 7/1/00	
TOLERANCES: <u>± .005</u>	
DIMENSIONS ARE IN INCHES	
TOLERANCES: <u>± .005</u>	
JOCK \pm <u>1/2P</u>	
NOTES: ALL SHARP CORNERS APPROX. .010	
FINISH:	
MATERIAL: SEE L/M	
SIZE: <u>E</u> CODE/IDENTIFY NO: <u>32097</u> DWG NO: <u>106936</u> REV: <u>G</u>	
SCALE: <u>2-1</u> DO NOT SCALE DWG SHEET: <u>1</u> OF <u>1</u>	

		REVISIONS	DATE	DR	CHK	APP
REV	DESCRIPTION					
A	ERN 10-KZ	PROD RELEASE	11/18	J-2	PC	
B	ECN 11151		11/20	PC	PC	
C	ECN 11251		11/20	PC	PC	
D	ECN 11816		11/20	PC	PC	
E	ECN 12070		11/20	MM	PC	
E1	ECN C12190		11/20	MM	PC	
E2	ECN C 12469		11/20	L-R	PC	
F	ECN C13313A		11/20	MD	PC	
G	ECN C13697		11/20	SD	PC	
H	ECN C14362		11/20	SDC	PC	
J	ECN C14440		11/20	SDC	PC	
X	ECN C14772		11/20	SD	PC	
L	ECN C14987		11/20	SD	PC	
M	ECN C 15473		11/20	IS P	PC	
N	ECN C 17122		11/20	IS	PC	
N1	ECN C 17470		11/20	IS	PC	
N2	ECN C 17564		11/20	PC	PC	
P	ECN C18137		11/20	PAC	PC	

TABLE I

PART NO.	REFERENCE DESIGNATION
100-0005	W2, 3
100-1025	R20
100-1055	R21, 26
100-2245	R25
100-3395	R18
100-4725	R19, 24
100-4745	R23
101-1015	R29
101-4705	R28
101-5615	R27
107-0348	R7, 14
107-1000	R4, 6, 12, 15
107-3833	R, 10
107-1003	R3, 5, 11, 13
107-5112	R 8
107-8253	R 2
121-1020	R1, 9
107-3482	R16
121-1030	R17
121-5040	R22
135-1002	C5, 6
130-1005	C1
135-4742	C2
139-2244	C3, 4
200-4123	Q1
300-4002	CR10, 11, 12
300-4446	CR1 THRU 9
400-0318	U5
400-0307	U1, 2
400-0311	U4, 6
710-7414	U3

TABLE V

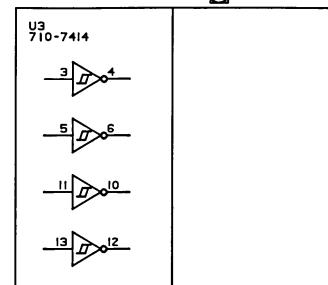


TABLE II

ASSEMBLY 106936 VERSION NO	VERSION CHARACTERISTIC	R30, 31	
		VALUE	PART NO.
-01		200K	121-2041
-02			
-03		200K	121-2041

REFERENCE DESIGNATION		
LAST USED	NOT USED	DELETED
C6		
CR12		
J21		
Q1		
R31		
TB4		
TP7		
U6		
W5		W1
S15	S4, S12, J3	

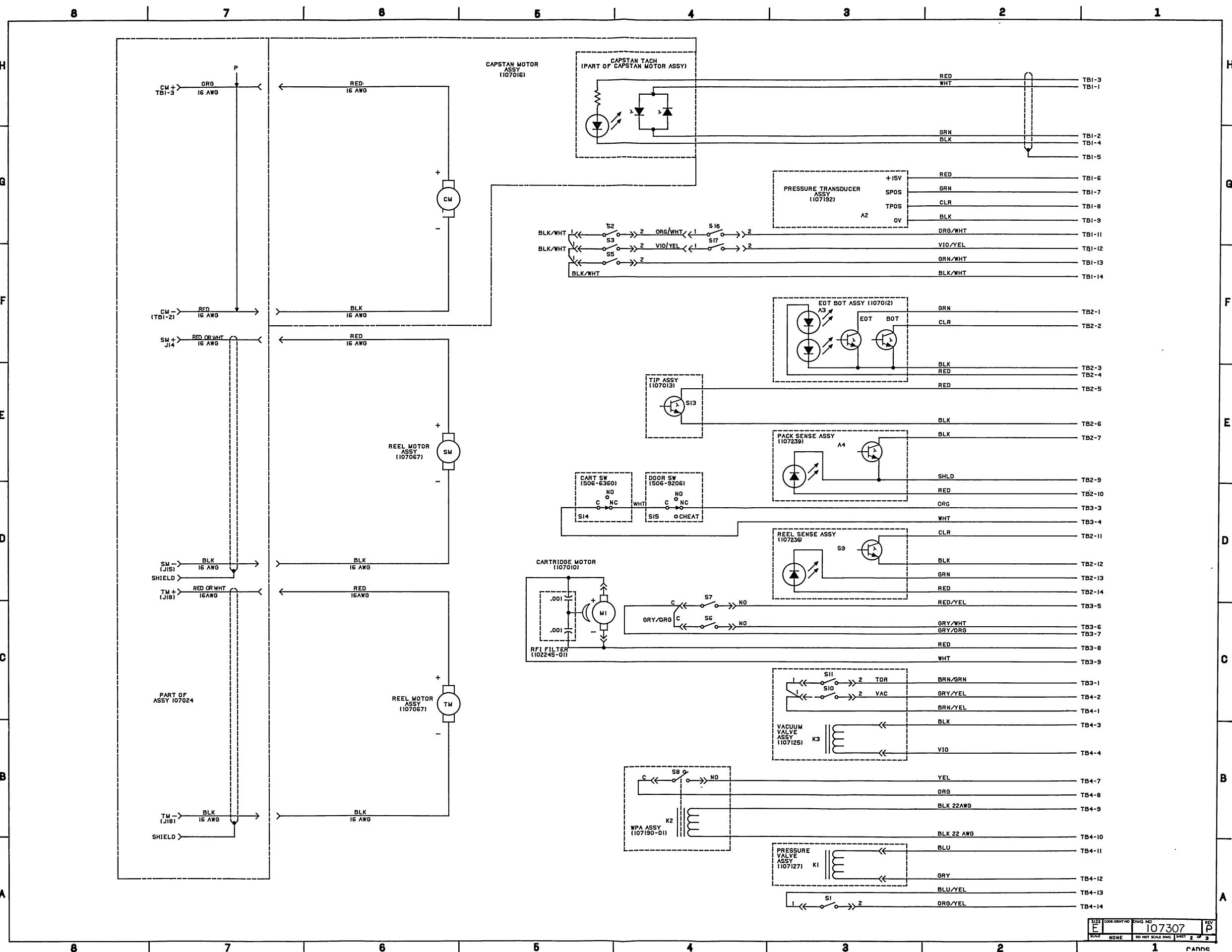
TABLE IV

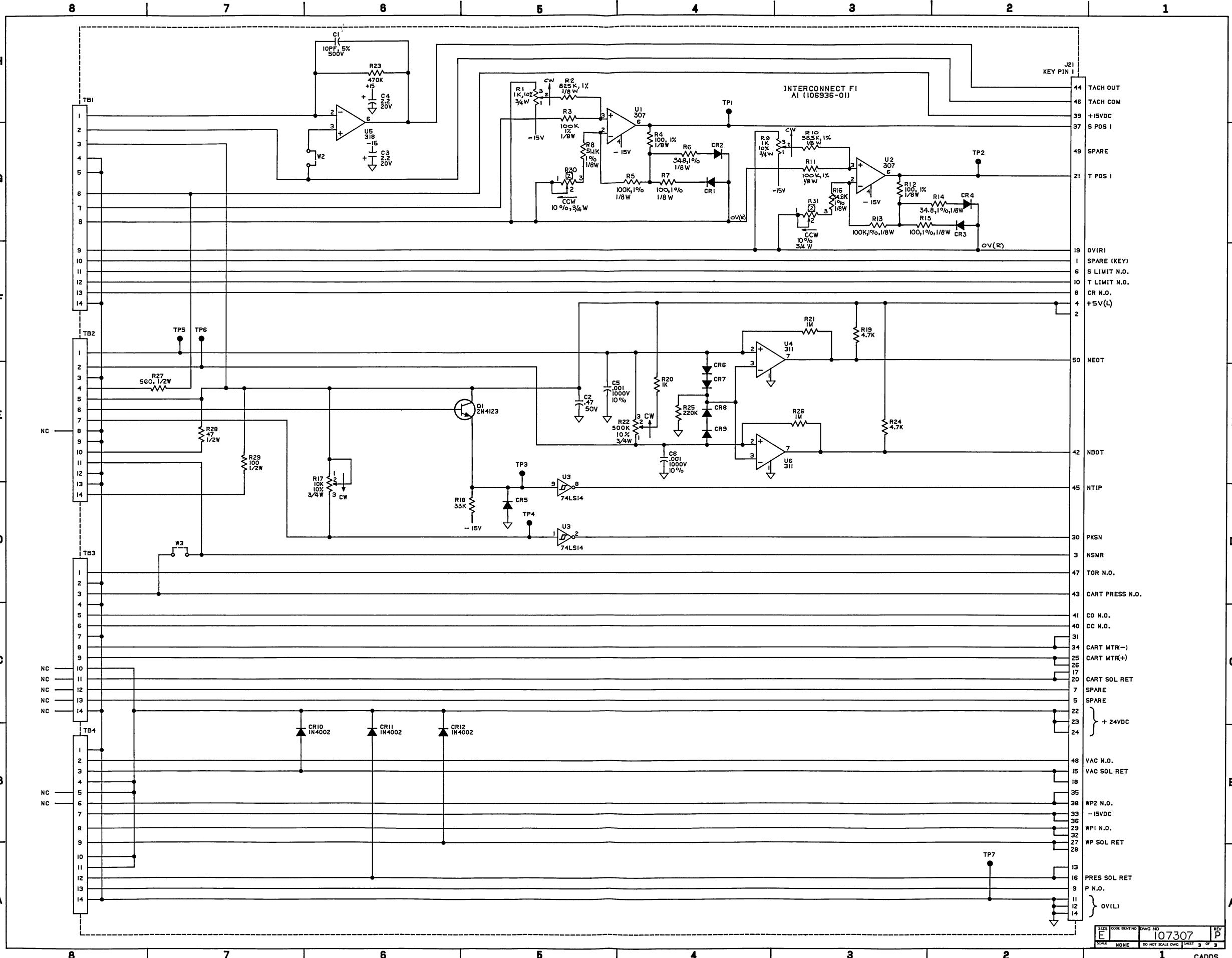
I.C. TYPE	GND	+5V	+15V	-15V
LM 307			7	4
LM 311			8	4
LM 318			7	4
74LS14	7	14		

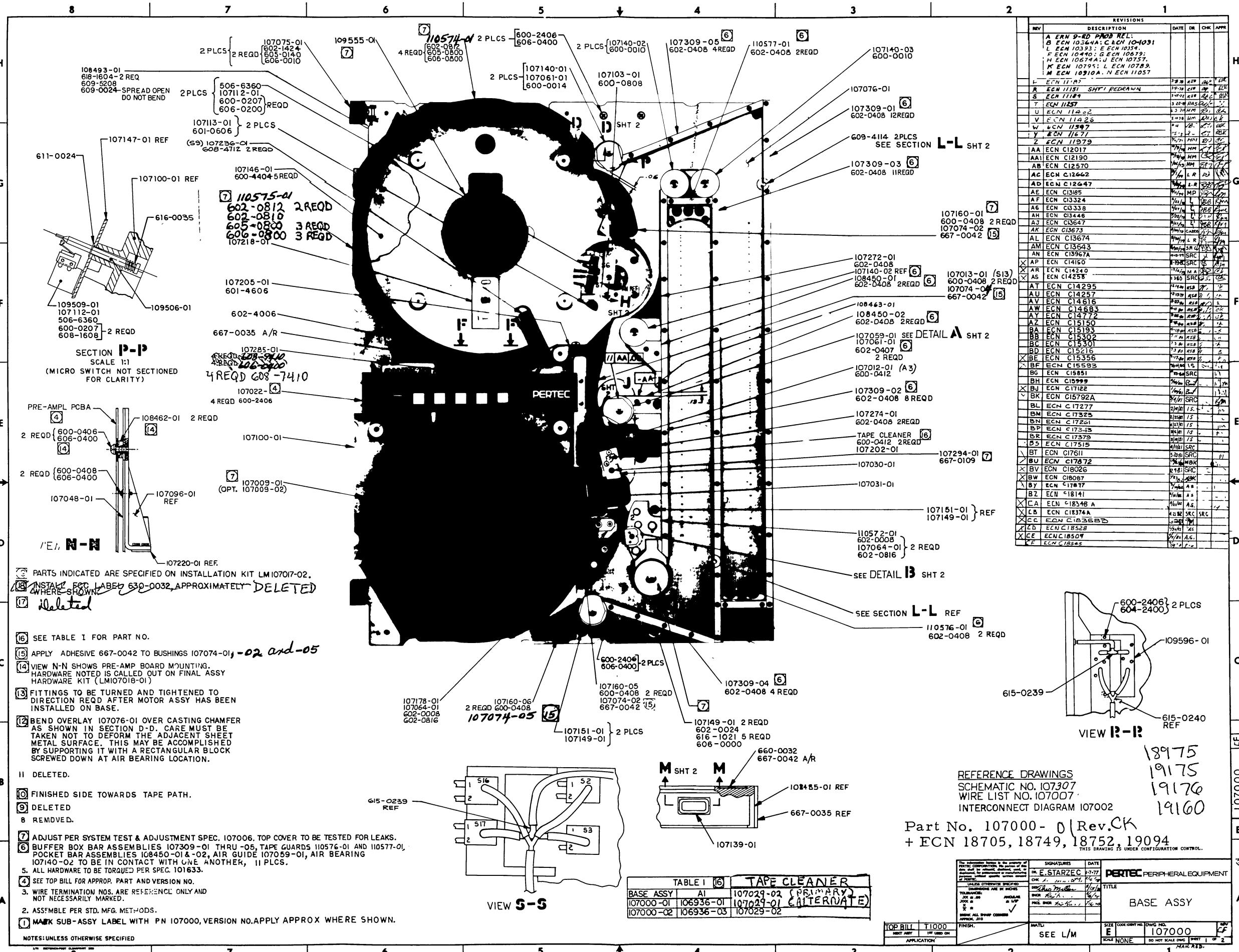
- II. WIRE IS 24 AWG WHITE.
- IO. DIODES ARE IN4446.
- 9. (RESERVED)
- 8. (RESERVED)
- 7. CAPACITOR VALUES ARE IN MICROFARADS, $\pm 20\%$.
- 6. RESISTOR VALUES ARE IN OHMS, 1/4W, 5%.
- 5 FOR SPARE LOGIC ELEMENTS, SEE TABLE V.
- 4 FOR I.C. GENERIC TYPE NUMBER AND GROUND/VOLTAGE PIN NUMBERS SEE TABLE IV.
- 3. (RESERVED)
- 2 FOR VALUE, PART NUMBER, AND USAGE, OF COMPONENTS AFFECTED BY VERSION NUMBER, SEE TABLE II.
- 1 FOR PART NUMBER OF COMPONENTS NOT AFFECTED BY VERSION NUMBER, SEE TABLE I.

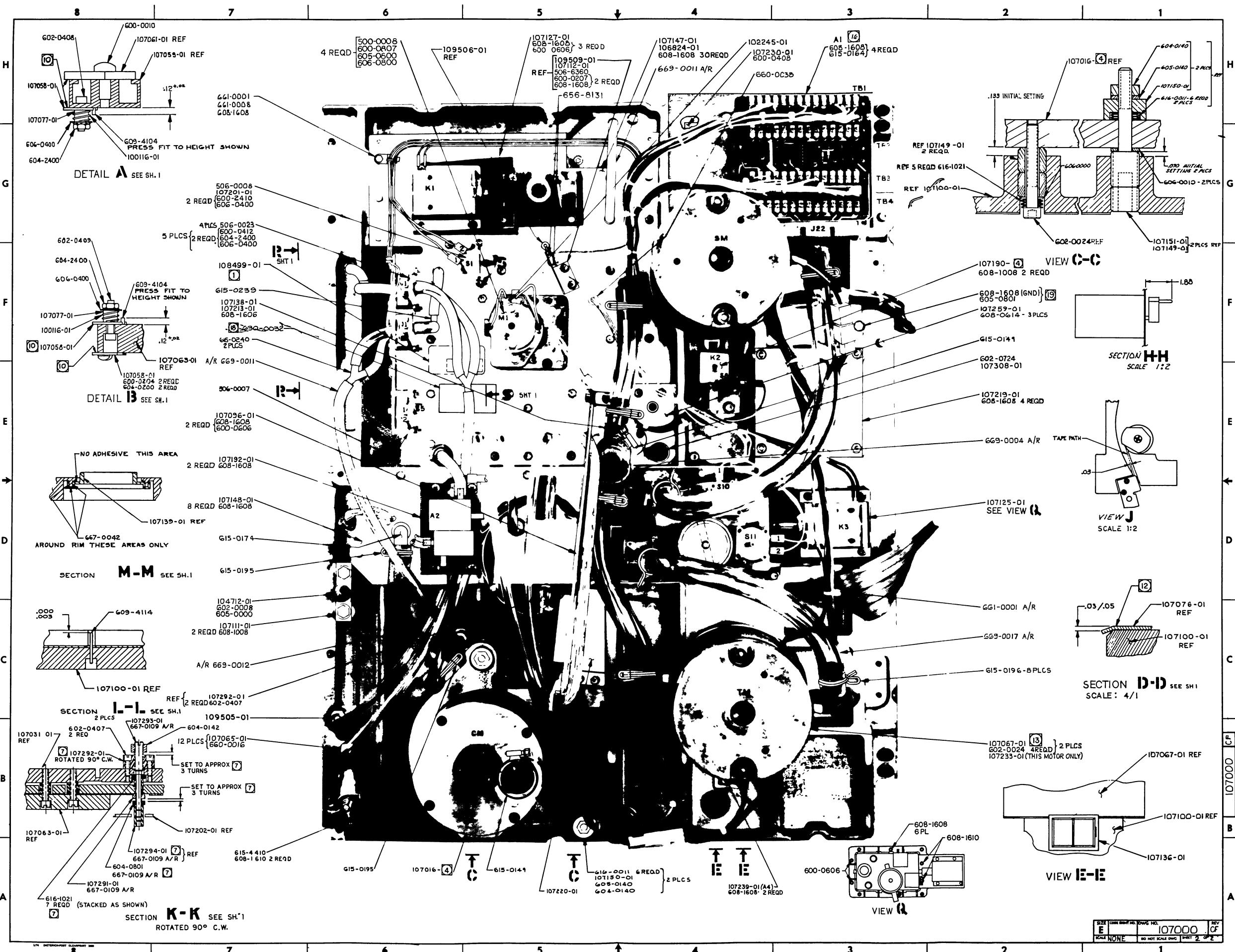
— SEE TABLE I.
NOTES: UNLESS OTHERWISE SPECIFIED

THIS DRAWING IS UNDER CONFIGURATION CONTROL.









REVISIONS

REV	DESCRIPTION	DATE	DR	CHK	APPR
A	ERN 100V PROD. RELEASE	1/14/71	DR	CHK	APPR
AI	ECN C12190	1/10/71	HM	KA	ED
B	ECN C12647	1/17/71	L.R.	RB	ED

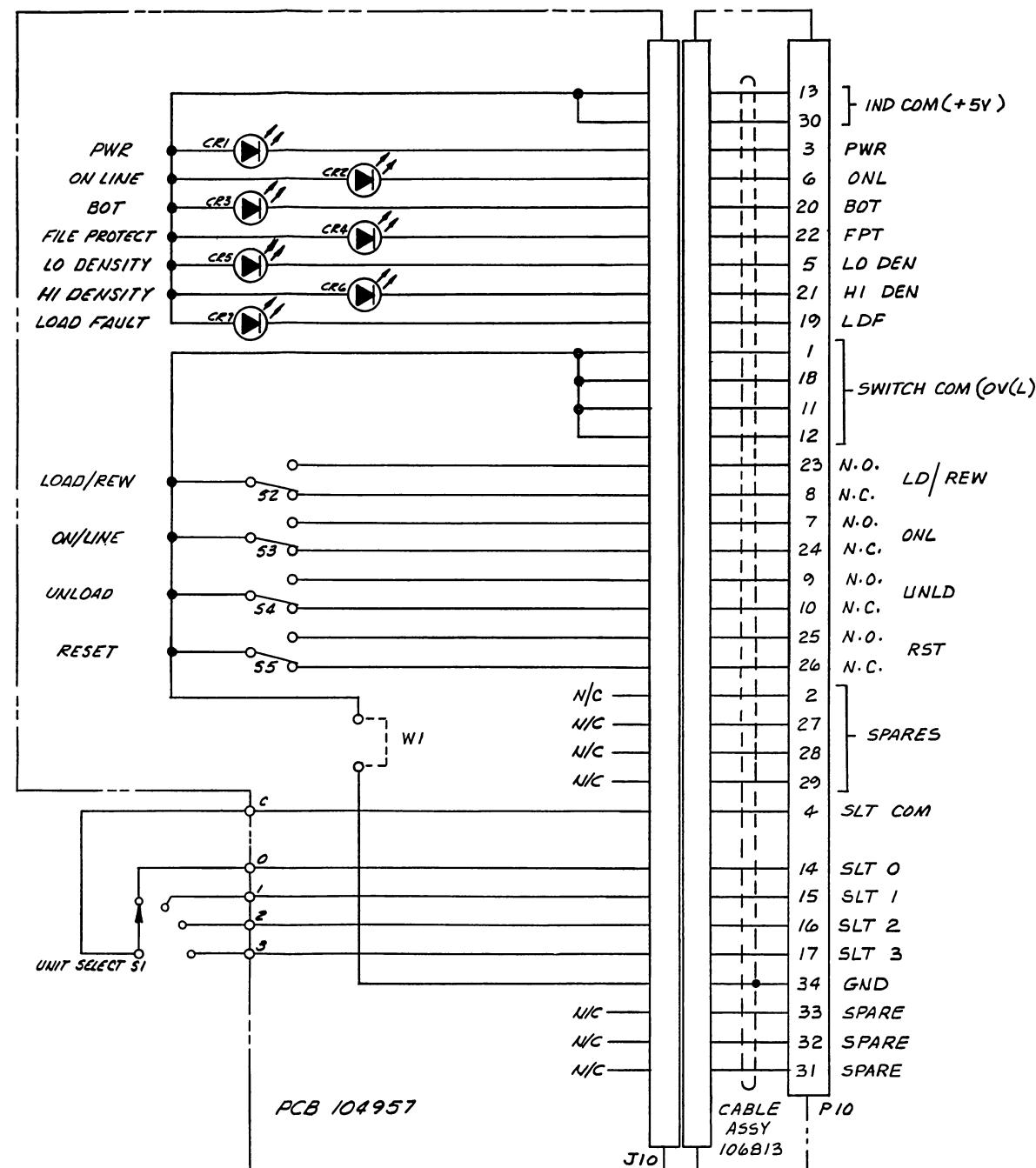


TABLE I

PART NO.	REF. DESIGNATION
301-0002	CR1, CR2, CR3, CR4, CR5, CR6, CR7
514-0011	S2, S3, S4, S5
506-6303	S1
691-0022	WI

TABLE II

REF DESIGNATION	
LAST USED	DELETED
CR7	
S5	
WI	

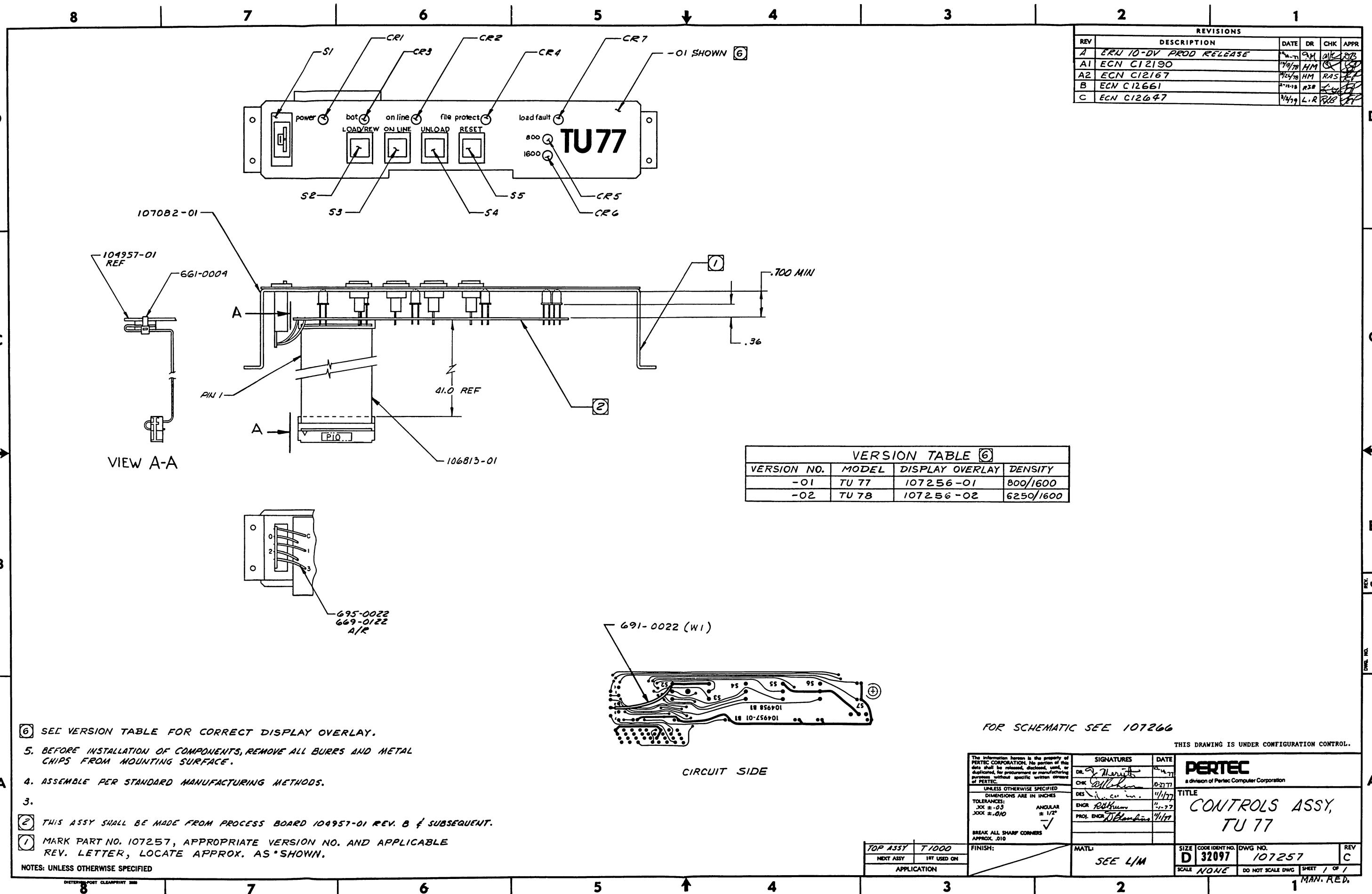
2 FOR ASSY DWG SEE 107257.

1 FOR PART NUMBER OF COMPONENTS NOT AFFECTED BY VERSION NUMBER SEE TABLE I.

THIS DRAWING IS UNDER CONFIGURATION CONTROL.

NOTES: UNLESS OTHERWISE SPECIFIED.

The information herein is the property of PERTEC CORPORATION. No portion of this data shall be released, disclosed, used, or duplicated, for procurement or manufacturing purposes without specific written consent of PERTEC.		SIGNATURES	DATE
		DR. Gary M. Miller	1/14/71
		CHC [Signature]	1/17/71
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: XXX ± _____ ANGULAR XXX ± _____ ± 1/2° PROJ. ENCR		DES	TITLE
ENGR. S. Person		1/17/71	SCHEMATIC
BREAK ALL SHARP CORNERS APPROX. J10			CONTROLS ASSY (TU77)
107257 71000 NEXT ASSY 1ST USED ON		FINISH:	SIZE
APPLICATION		MATL:	CODE IDENT NO
			DWG NO
			107266
			REV B
		SCALE NONE	DO NOT SCALE DWG
			SHEET 1 OF 1



8

7

6

5

4

3

2

1

REVISIONS

REV	DESCRIPTION	DATE	DR	CHG	APPR
A	ERN 112-MY PROD. RELEASE	2-240	SRCA	AN	

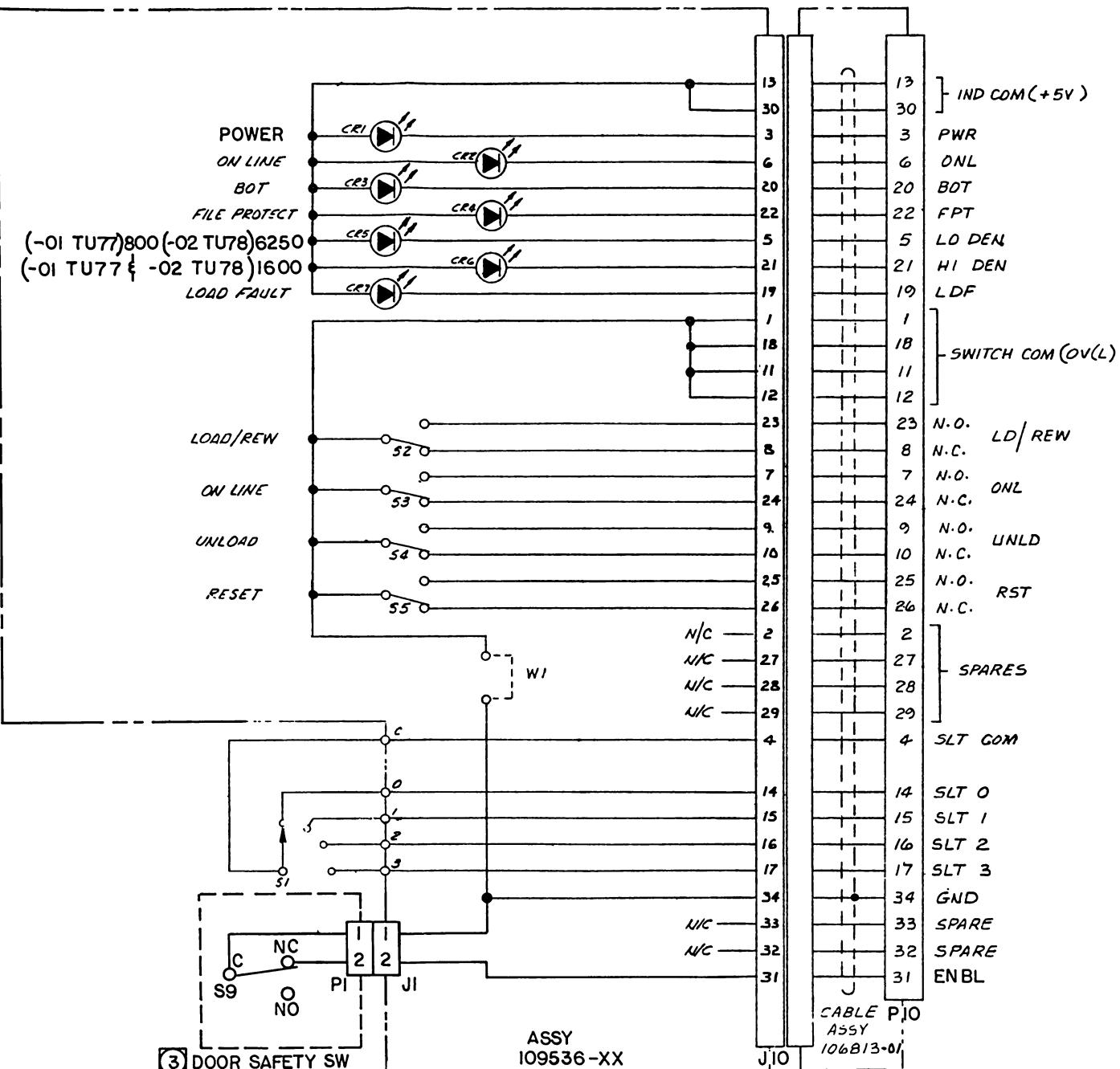


TABLE I

PART NO.	REF. DESIGNATION
301-0002	CR1, CR2, CR3, CR4, CR5
	CR6, CR7
514-0011	S2, S3, S4, S5
506-6303	S1
691-0022	W1

TABLE II

REF DESIGNATION		
LAST USED	NO USED	DELETED
CR 7		
S9 (3)	S6,7,8	
W1		

(3) DOOR SAFETY SWITCH-SEE TOP ASSY FOR USAGE.

2. FOR ASSY DWG SEE 109536.

(1) FOR PART NUMBERS OF COMPONENTS NOT AFFECTED BY VERSION NUMBER SEE TABLE I.

NOTES: UNLESS OTHERWISE SPECIFIED.

THIS DRAWING IS UNDER
CONFIGURATION CONTROL.

The information herein is the property of PERTEC CORPORATION. No portion of this data shall be reproduced, transmitted, or copied in whole or in part, in any manner, duplicated, for procurement or manufacturing purposes without specific written consent of PERTEC.		SIGNATURES	DATE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DR. SYD CROWELL	2-240
TOLERANCES: XX ± ANGULAR XXX ± ± 1/2		CHG 1/10/81	
BREAK ALL SHARP CORNERS APPROX. .010		DES 1/10/81	2-240
		ENCR	
		PROJ ENCR	
		TITLE: SCHEMATIC, CONTROLS ASSEMBLY (TU77/78)	
109536	7/1000	FINISH:	MATL:
NEXT ASSY 1ST USED ON		SIZE CODE IDENT NO. DWG NO.	
APPLICATION		D 32097 109535 REV A	
SCALE NONE DO NOT SCALE DWG		SHEET OF	

8

7

6

5

4

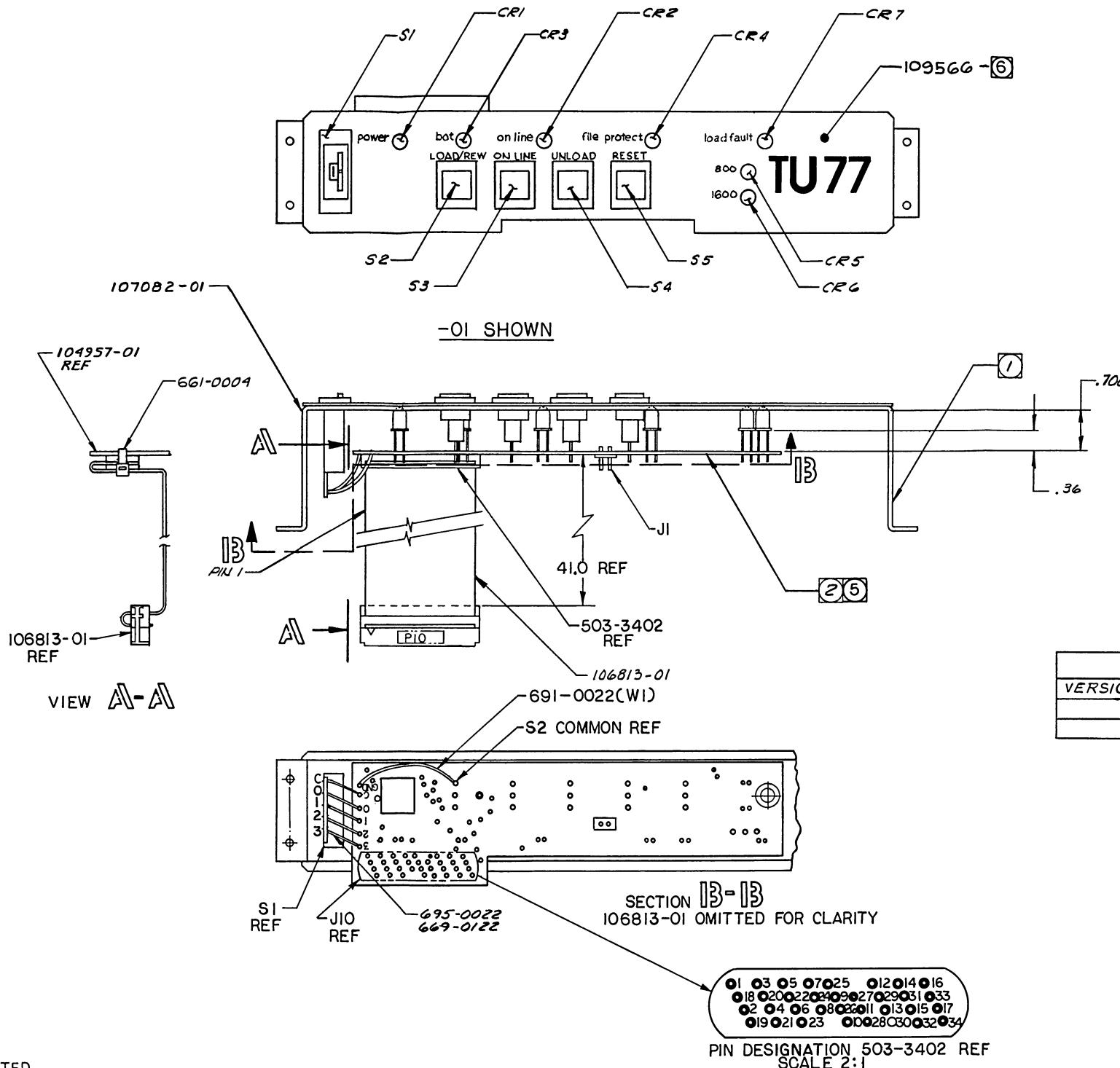
3

2

1

D

D



VERSION TABLE			
VERSION NO.	MODEL	DISPLAY OVERLAY	DENSITY
-01	TU 77	109566 - 01	800/1600
-02	TU 78	109566 - 02	6250/1600

7. DELETED

6. SEE VERSION TABLE FOR CORRECT DISPLAY OVERLAY.

5. BEFORE INSTALLATION OF COMPONENTS, REMOVE ALL BURRS AND METAL CHIPS FROM MOUNTING SURFACE.

4. ASSEMBLE PER STANDARD MANUFACTURING METHODS.

3. RESERVED

2. THIS ASSY SHALL BE MADE FROM PROCESS BOARD 106813-01 REV. A & SUBSEQUENT.

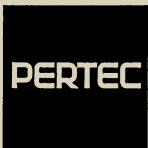
1. MARK PART NO. 109536, APPROPRIATE VERSION NO. AND APPLICABLE REV. LETTER, LOCATE APPROX. WHERE SHOWN.

NOTES: UNLESS OTHERWISE SPECIFIED

THIS DRAWING IS UNDER CONFIGURATION CONTROL.

SIGNATURES		DATE
DR. SYD CROWELL	2-880	
CHK	2-13-80	
DES	2/13/80	
ENG	2/13/80	
PROJ. ENG	..	
TITLE		
PERTEC		
a division of Pertec Computer Corporation		
CONTROLS ASSY		
(TU 77/78)		
TOP ASSY.	71000	
NEXT ASSY	1ST USED ON	
APPLICATION		
FINISH:	SEE LM	
MATERIAL:	SEE LM	
SIZE	CODE IDENT NO.	DWG NO.
D	32097	109536
REV	CI	
SCALE	NOTED	DO NOT SCALE DWG
SHEET 1 OF 1		

BLANK



**PERTEC
COMPUTER CORPORATION**
Peripherals Division
P.O. Box 2198
Chatsworth, CA 91311
(213) 882-0030
TWX (910) 494-2093